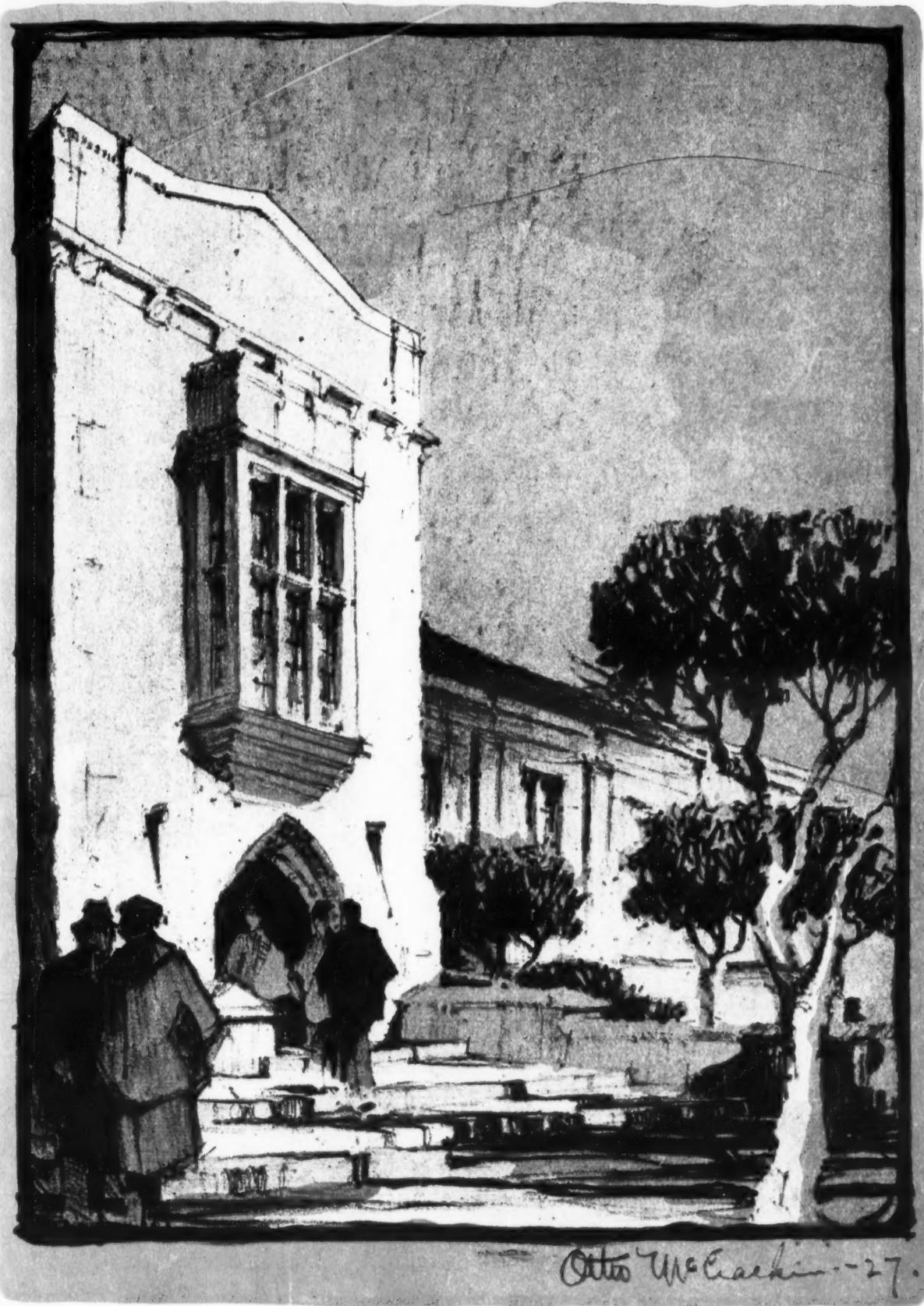


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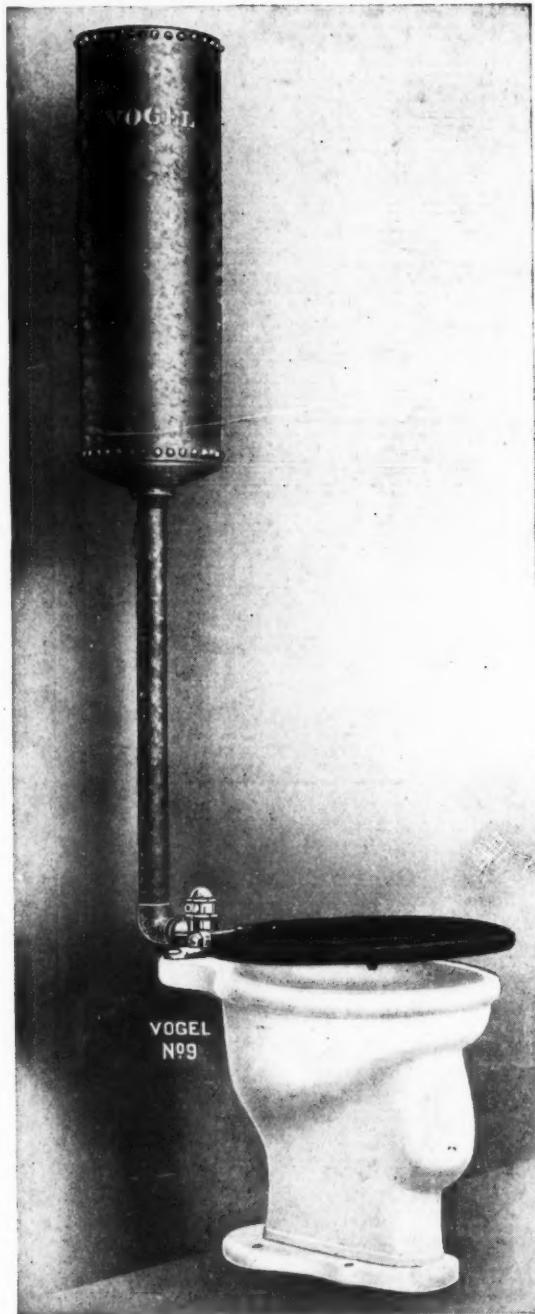
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Devoted to the Interests of School Boards, Superintendents,  
School Business Officials, and School Architects



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VOLUME 75  
JULY-DECEMBER, 1927

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July-December, 1927

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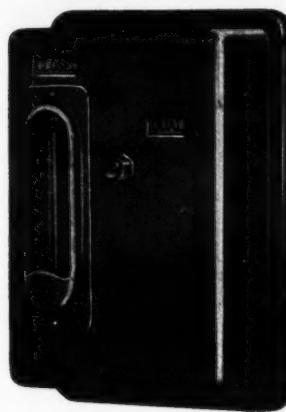
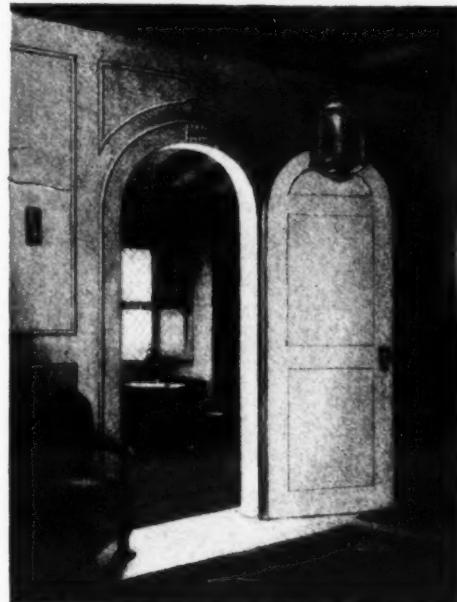
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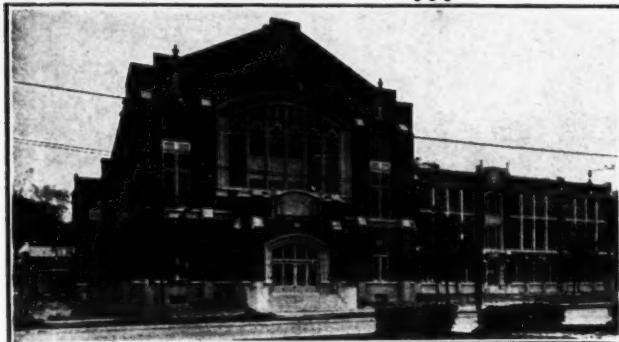
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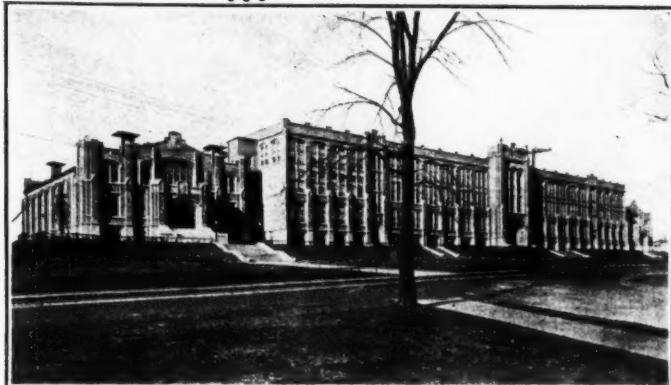
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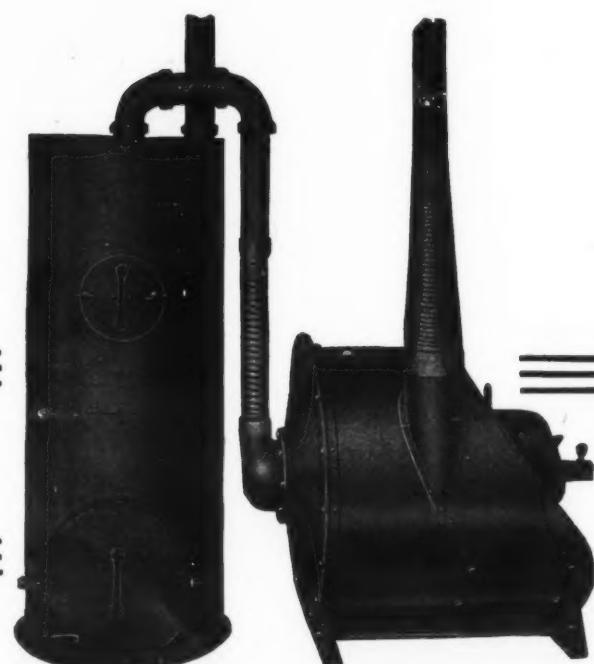
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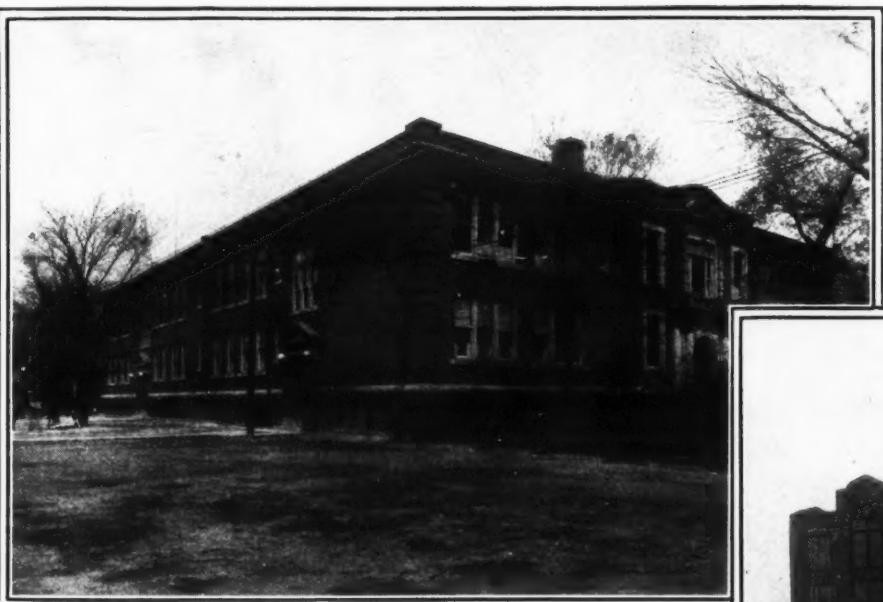
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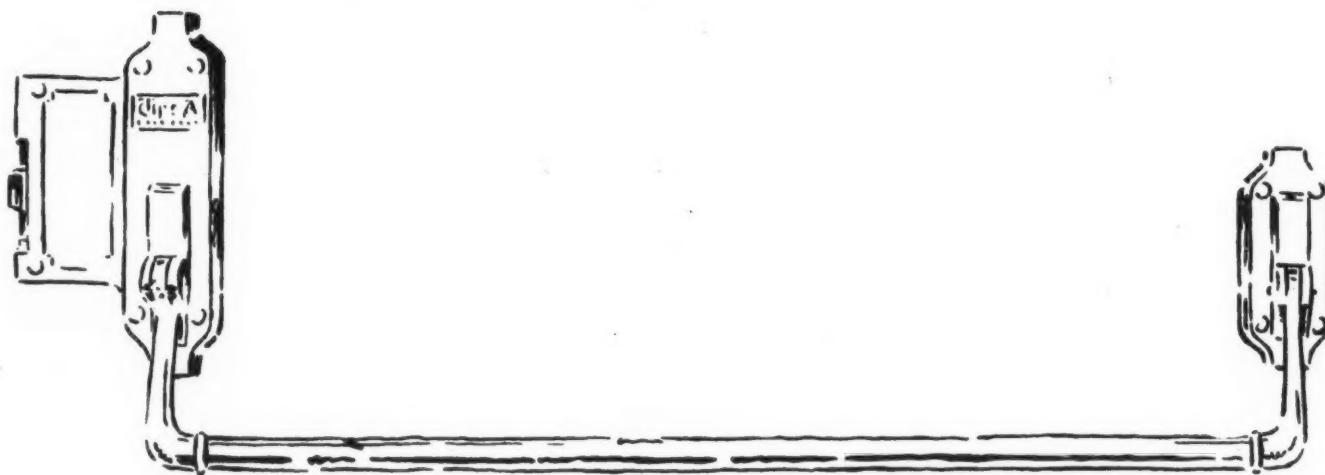
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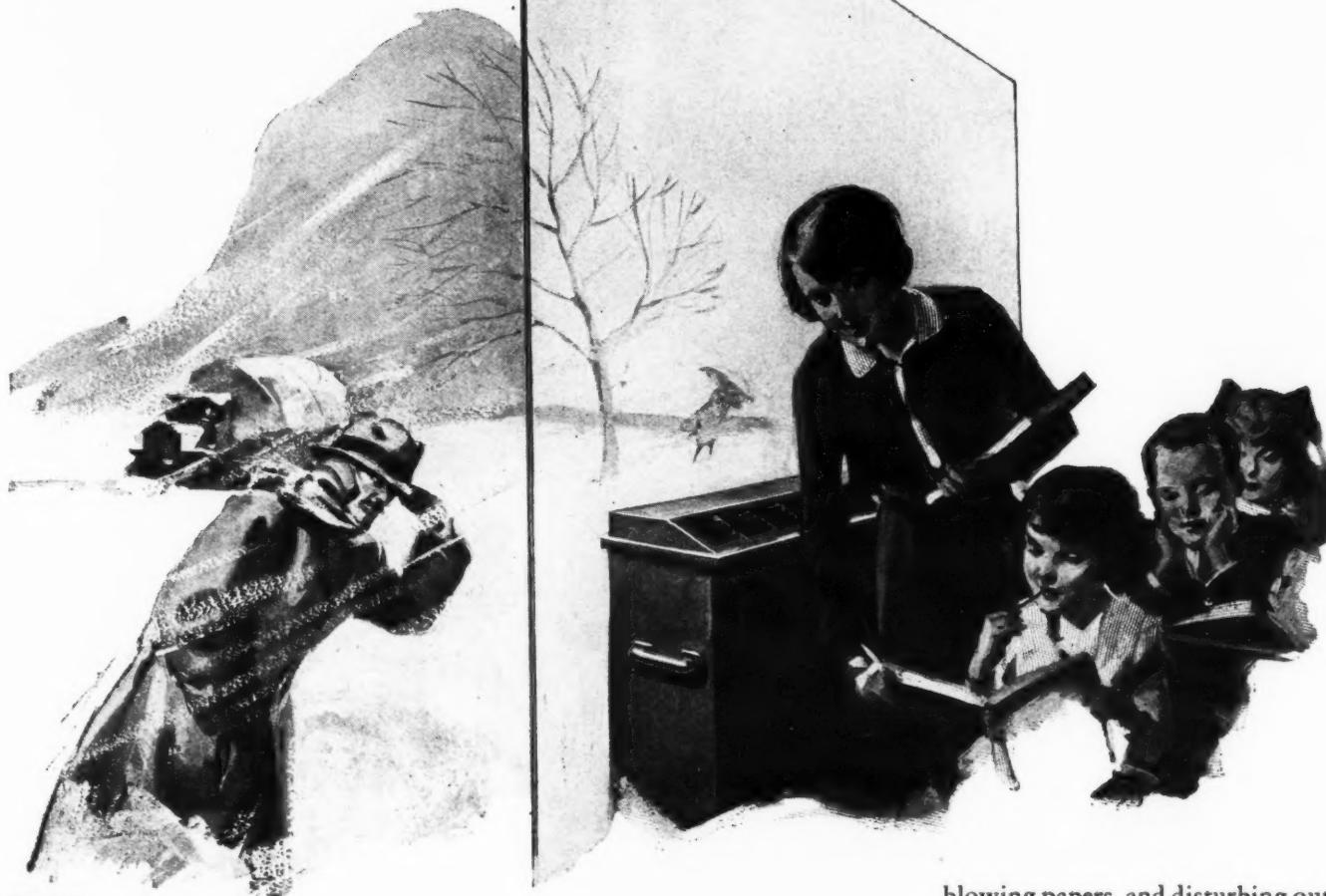
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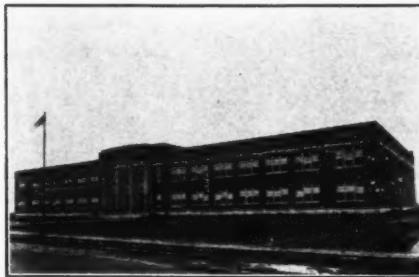
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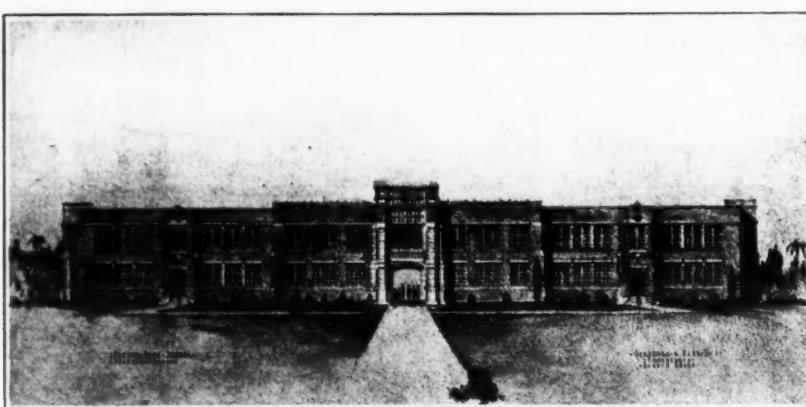
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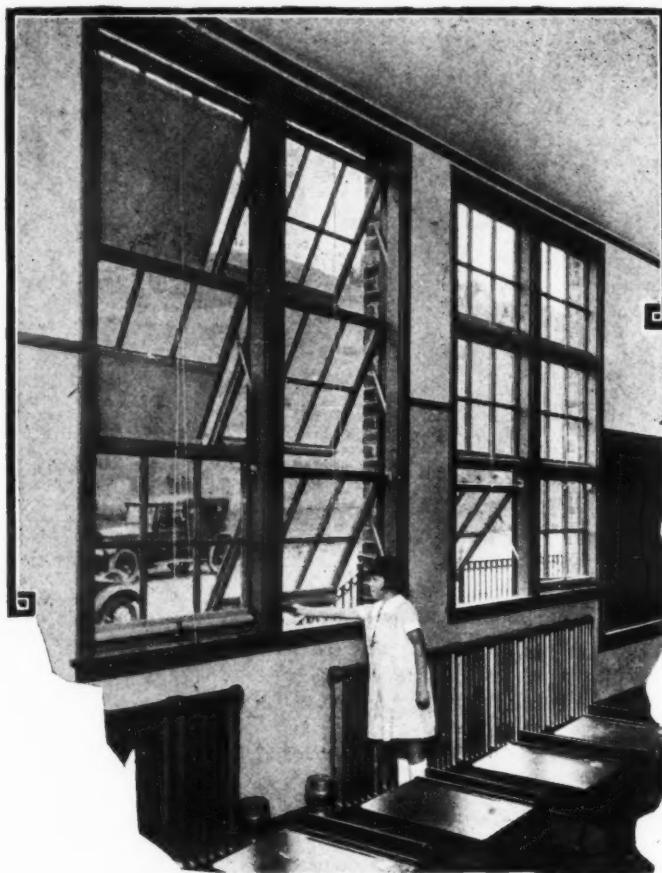
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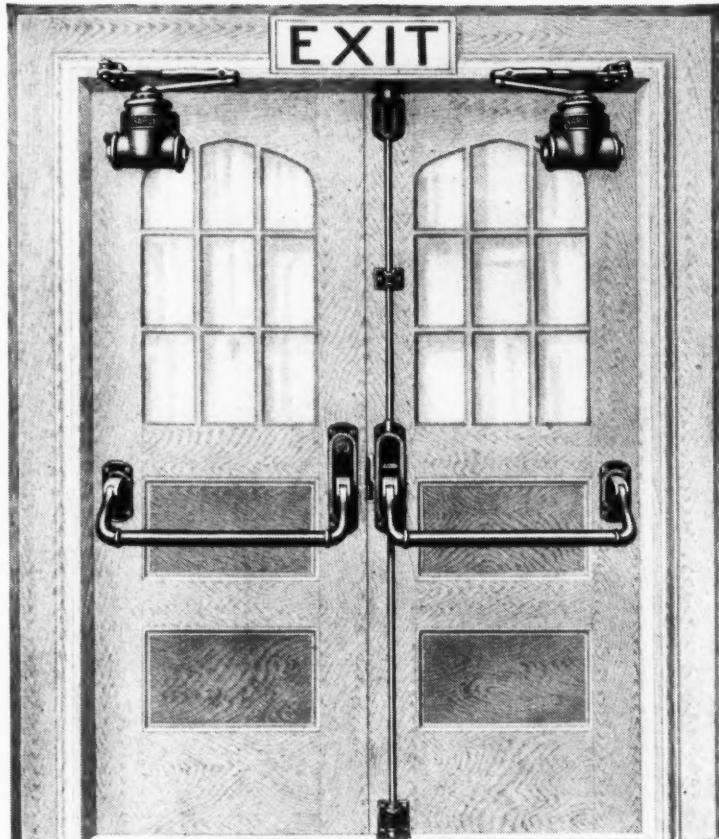
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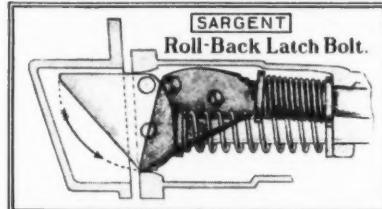
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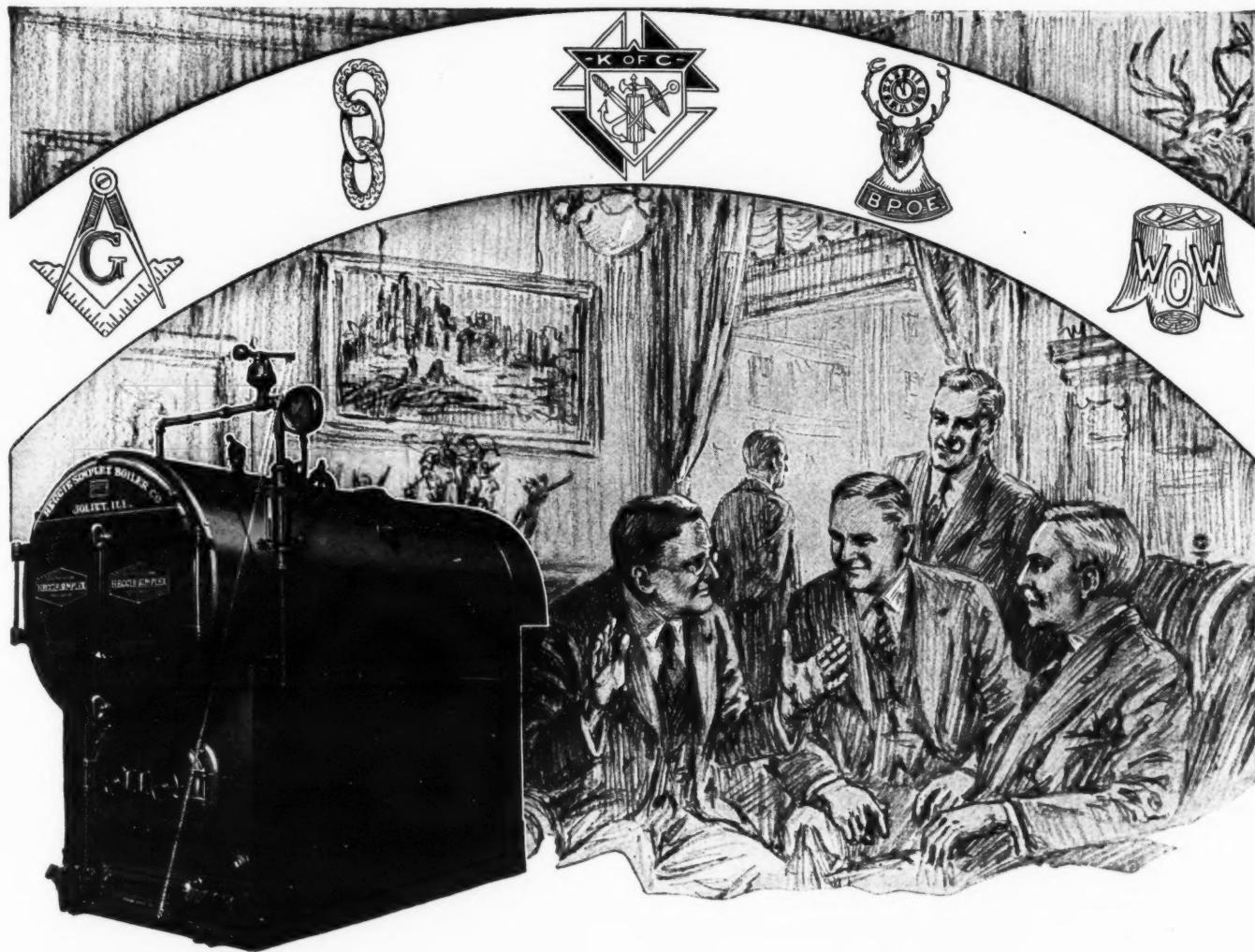
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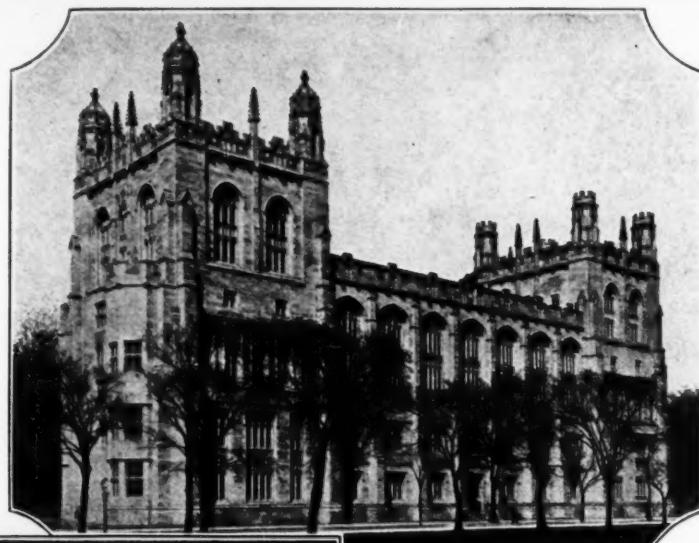
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ELECTRIC-WELDED STEEL HEATING BOILERS

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## Dignity and Permanence in Floors of OAK

OLIVER WENDELL HOLMES in his delightful poem, "The Deacon's Masterpiece, or The Wonderful 'One-Hoss Shay'" in the building of which only the strongest materials were used, including floors of oak, points this moral: "little of all we value here wakes on the morn of its hundredth year, without both feeling and looking queer. In fact, there's nothing that keeps its youth, so far as I know, but a tree and truth."

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Valuable information on the uses, advantages, and proper care of oak floors will be mailed to school officials on request.

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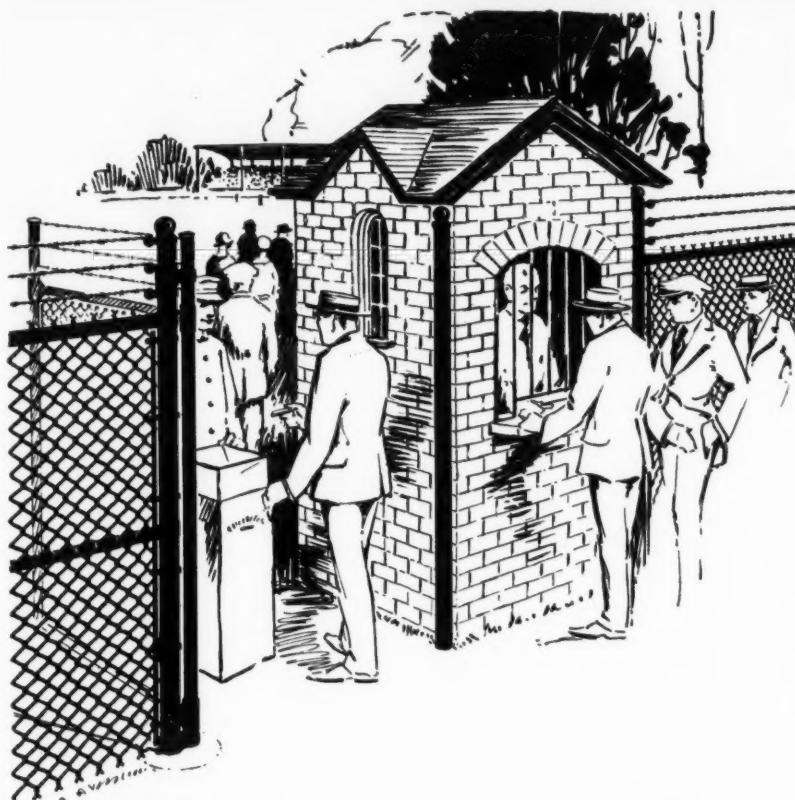
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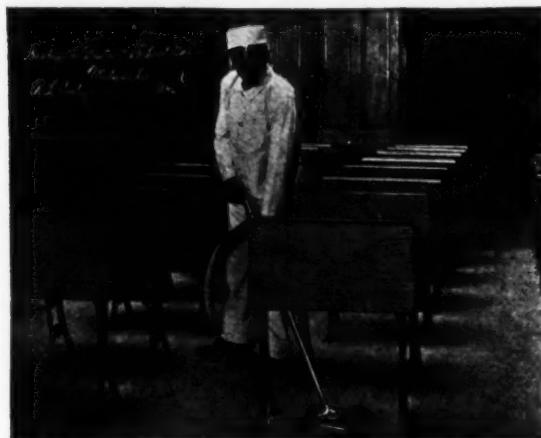
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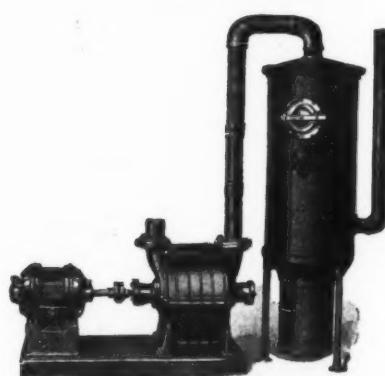
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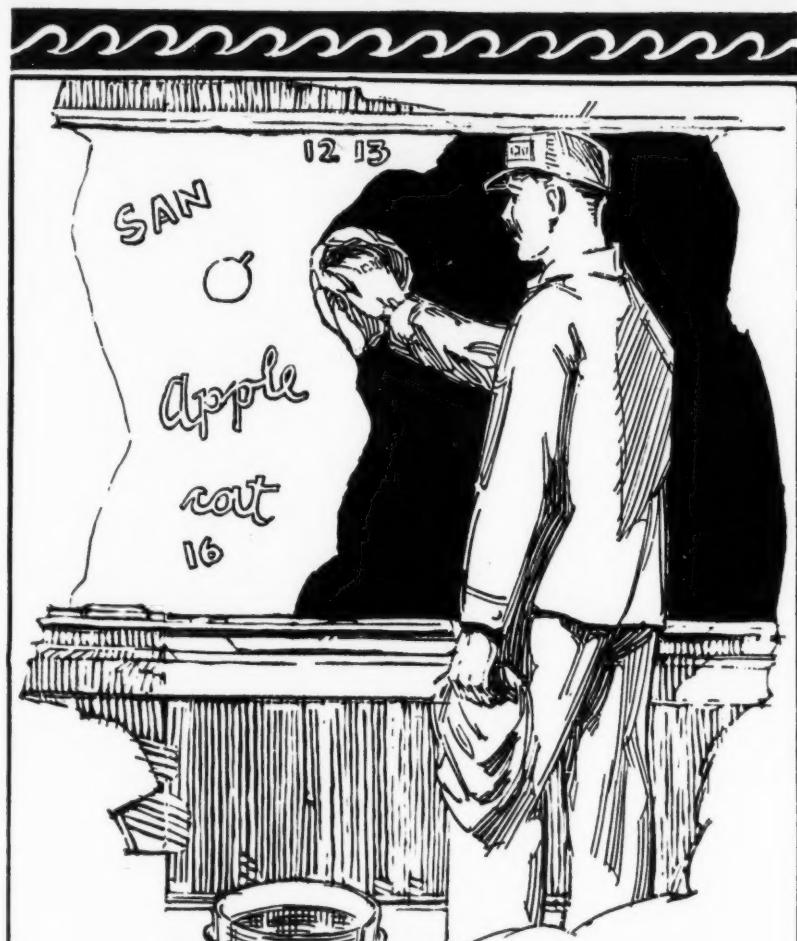
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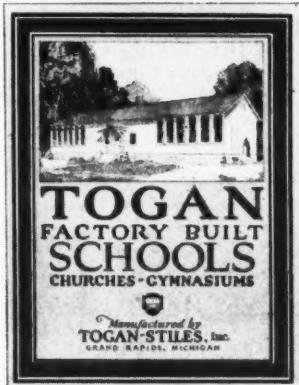
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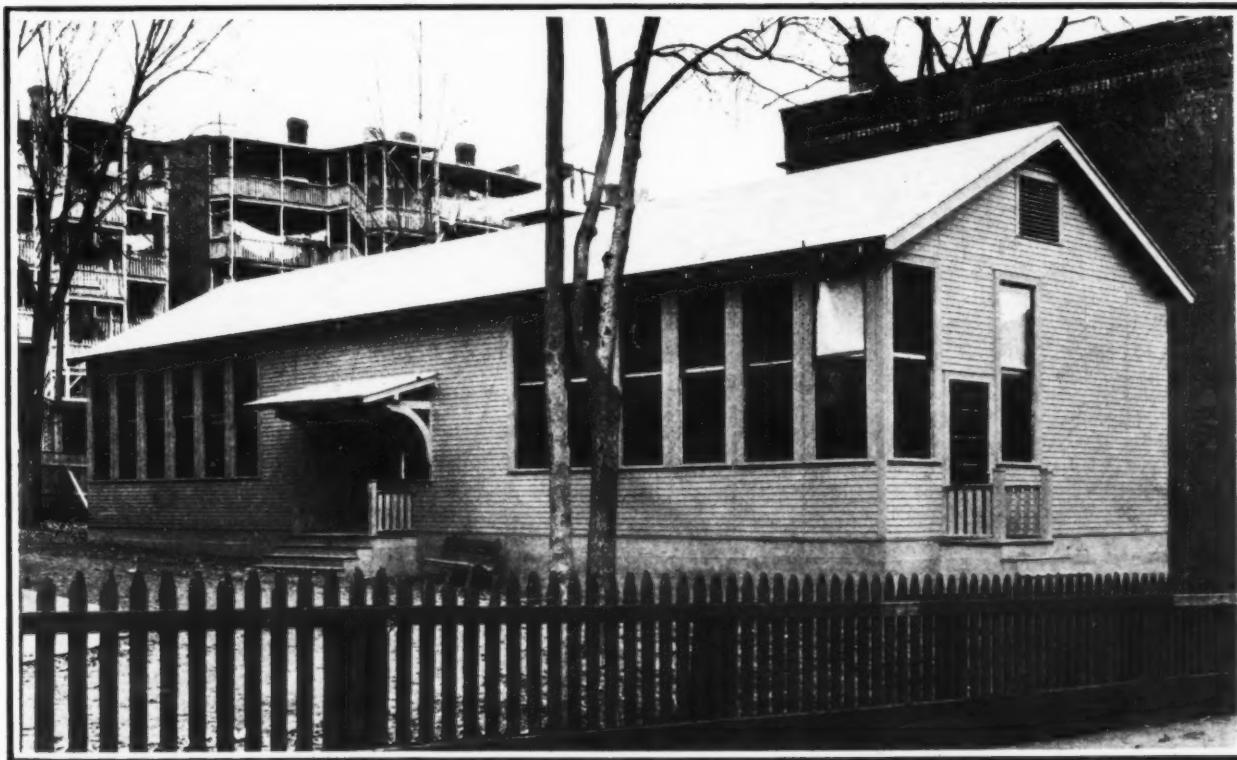


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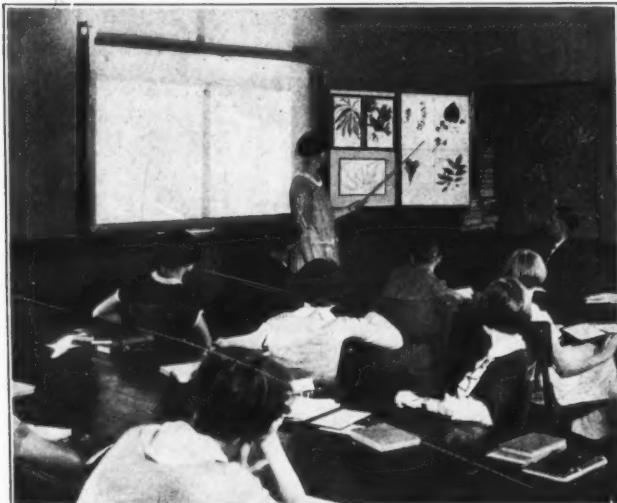
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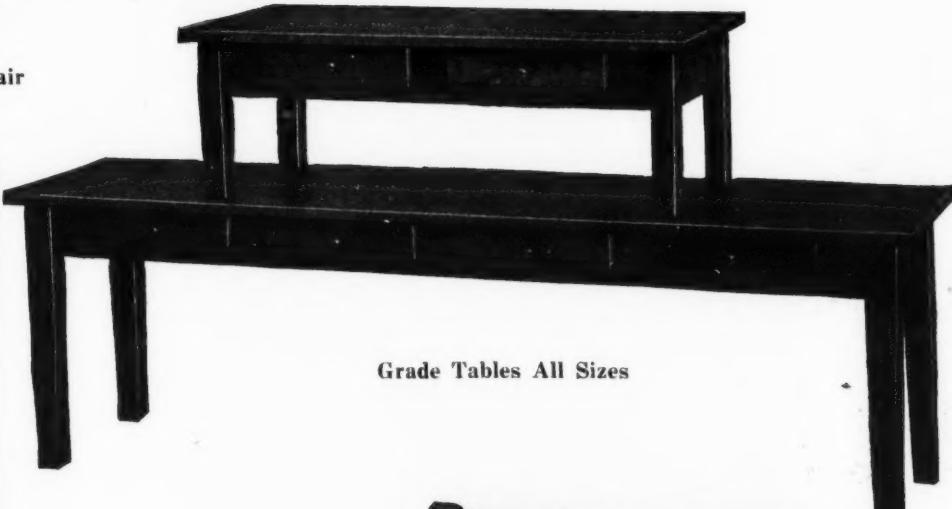
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*A comparison is all we ask.  
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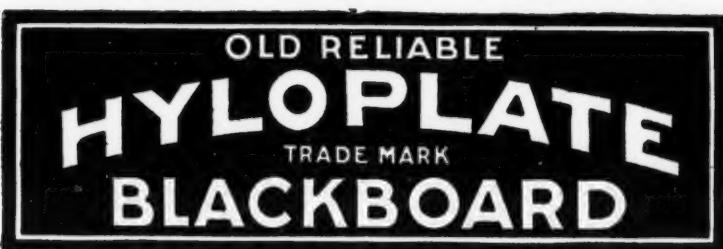
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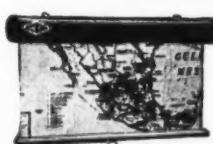
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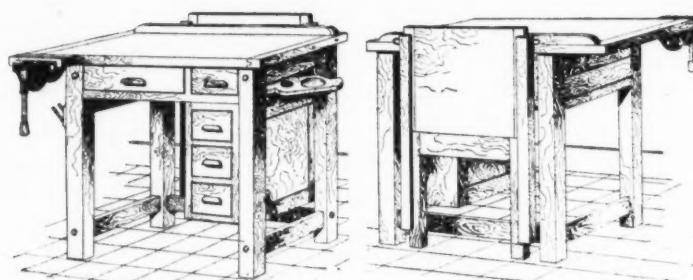


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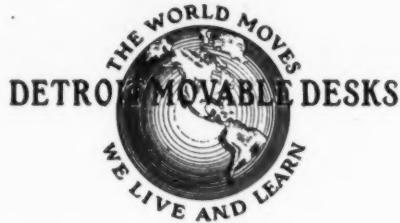


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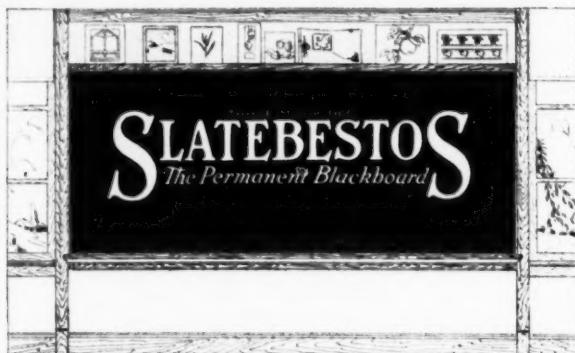
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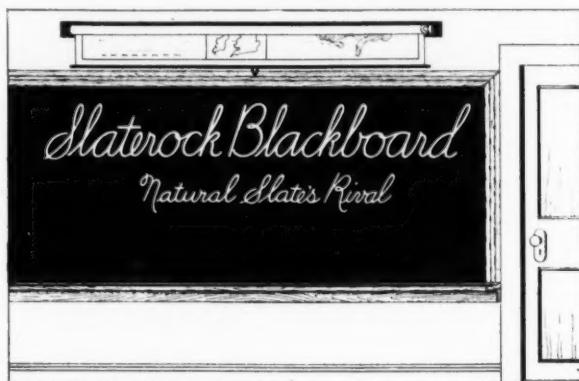
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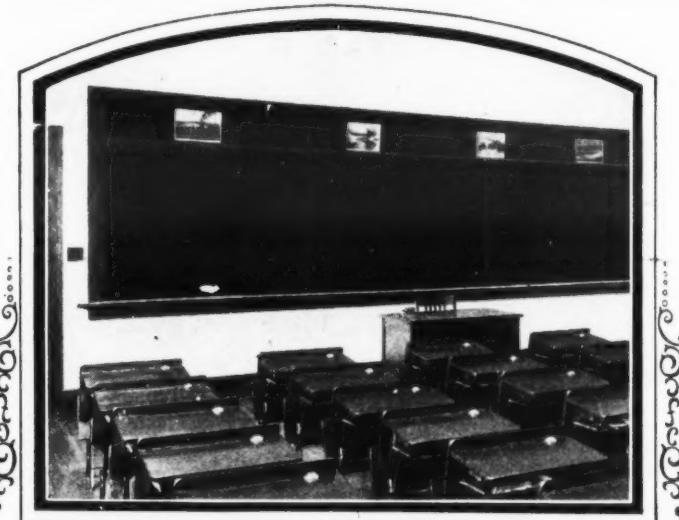
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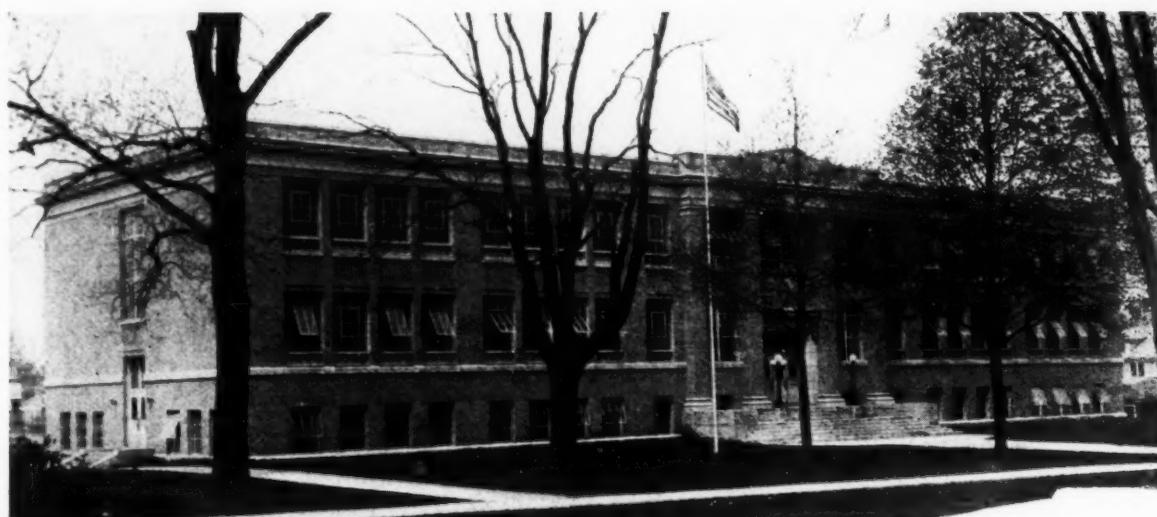
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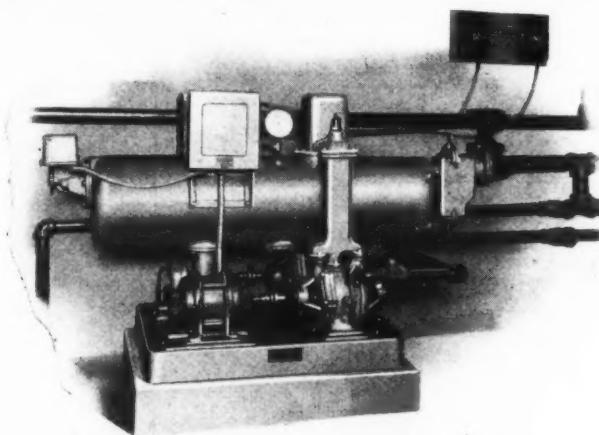
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A Periodical of School Administration

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Volume 75

July, 1927

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## Needs of Schools

The present issue of the AMERICAN SCHOOL BOARD JOURNAL is the "Annual Supplies and Equipment Number," and subscribers will find a number of helpful papers on the selection, purchase, and standardization of various school and teaching necessities. The advertising pages contain hundreds of announcements of valuable new materials and are as deserving of study as the reading pages.

The importance of proper and ample equipment and supplies is well put in a recent printed statement of Mr. E. E. Elliott, director of the Oregon State Board of Vocational Education:

"It is a serious situation . . . when a teacher is expected to teach without the recognized paraphernalia necessary to a proper presentation of the subject. One may have the finest of materials at hand in the form of subject matter with which to build the structure, but without the proper tools it stands the chance of being only a botched job.

"There are many subjects, . . . which will certainly be taught indifferently if limited in material, supplies, and equipment, nor can you take the provisions for one subject and well adapt them to another.

. . . Similar weakness will often be found in the academic sphere, . . . It is to the credit of most school boards that they are ready to recognize these facts, and supply these needs, even though occasionally a group will be found who are unable to grasp its importance, or who are too penurious to supply the minimum of such equipment."

Education is a living, growing process that is changing from day to day. Only by adjusting school buildings, furniture, equipment, supplies, and books to the present needs, according to the best practice, can the schools render the service demanded of them. The duty of school boards to provide proper educational materials is evident.

*The Editors:*

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"Makes Every Minute Count"

# THE AMERICAN School Board Journal

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The School Superintendent's Job

## Familiar But Fundamental Facts

Russell S. Peterson, St. Paul, Minn.

1. Your town has a school board that the children may have the best education that the wealth of the community will permit, for good schools do not merely happen; they are the fruit of careful planning and the earnest deliberation of wise men.

2. The school board decides the policies by which the schools are run, but it leaves the actual administration of the schools to the superintendent which it employs for that purpose, for administration is a one-man job as far as ultimate responsibility is concerned. We must have one man whom we can hold accountable for results, a man who cannot pass the buck to a fellow committeeman or a brother board member. Furthermore, the running of a modern school system is a professional task, and laymen are no more capable of doing it right than they are of designing an electric motor or performing a tonsillectomy.

3. In other words, the school board sees that the schools are properly managed; it does not manage them itself, for if the school board has not the ability to select a competent executive for the school system, it assuredly does not possess the ability to be its own executive.

4. The school board gets the best results by giving its superintendent complete executive power and holding him fully responsible for the achievement of the board's purposes, for if the schools are to be run with any measure of success, there must be one man whom we can hold responsible if things go wrong, and we cannot hold the superintendent to that responsibility without giving him proportionate power.

5. The initiative in all appointments should be exercised by the superintendent, for every appointment should be based entirely upon the candidate's professional qualifications, upon his potential usefulness to the school system, and the expert school administrator at the head of the school system should be a better judge of this than anyone else.

6. Likewise the function of the school board is not to supervise teachers but to make provision that teachers are supervised, for supervision, the guidance of the teacher in the classroom, if it is going to be done as it should be done, is the work of a professional educator. Occasionally we see well-meaning but misguided persons urge the election to the school board of a retired teacher or an ex-principal who has turned insurance agent on the ground that such men can better supervise the teachers than can board members who are innocent of professional educational lore. Such people have an entirely wrong conception of the function of the school board. Hardheaded and broadminded men who have the common sense to see that the general policies governing the management of the school are sound, make better board members than do superannuated teachers who feel it their duty to putter in affairs which are entirely the concern of the professional employees of the board.

7. It is also the function of the school board to see that supplies are bought and not to buy the supplies itself, for in these days of specialization and varied educational activities, the economical purchase of school supplies requires such an accurate knowledge of educational practice that amateurs or committees of amateurs cannot buy to advantage, however good their general knowledge of business principles may be.

8. A small school board is generally better than a large one, for a crowd affords poor guidance to any institution. The board must be small enough so that some unity of policy results from its deliberations.



9. And as a rule it is better that the members of the board be elected at large. That is, every board member should represent all the people of the district and not merely one portion or ward, for the board members should have in mind the educational advancement of all the children of the district, and not simply work in behalf of the more or less selfish interests of their own part of town.

10. Generally the better school boards have a minimum of power entrusted to standing committees of the board, for powerful standing committees generally mean that the unity of the board is weakened, that the will of all the people is not expressed, and that board members and board committees are taking over duties that belong to the professional staff of the schools. Such committees too often mean that board members are so burdened with minor details that they do not find time for the more important tasks of planning and formulating the general policies of school government.

11. Most school-board members do not receive any salary for their services on the school board, for men and women who are willing to assume the responsibilities and griefs of school-board membership merely for the sake of the service they may render, make better board members than those who might be tempted to seek the job for the sake of a few dollars if board members were paid. There is more danger, too, that paid board members will usurp duties that belong to the professional administrative staff of the schools.

12. Board members should not encourage teachers and parents to take their trouble to individual board members, for members of the

board as individuals have no more authority in school matters than have other citizens of the school district. The school board should be a court of last resort, and complaints should be handled by the board only when the aggrieved parties are not satisfied with the ruling of the superintendent.

13. The superintendent recognizes the fact that the determination of school policy rests with the board as a whole. The entire board is entitled to all pertinent information, for the superintendent is the servant of the board and not of any individual member or faction thereof. The superintendent who withholds essential facts from some members of the school board and looks to guidance only to certain other members is defeating the spirit of the law, is thwarting the will of the people as expressed in their choice of school directors, and is courting his own personal disaster.

14. Neither board member nor superintendent should ever attempt to sell life insurance, bonds, building-and-loan shares, or any other service or commodity to any member of the school staff, for while the probabilities are that such a transaction may be entirely legitimate, there is always the possibility that the more timid of the teachers might feel a compulsion to buy, or that an unscrupulous superintendent or board member might use his position as a club to force his subordinates to purchase from him. We do not want to give any teacher an opportunity to say that she lost her position because she bought her insurance from the wrong agent or deposited her money in the wrong bank.

15. The wise school board takes the public into its confidence, for no school system can progress any faster than one step ahead of its clientele. Success in school administration is permanent only to the extent that the man in the street knows and approves the *what* and the *why* of school policies.

16. The wise school board is represented at conventions of school administrative officers; its members read the SCHOOL BOARD JOURNAL, for all wisdom or even half of it does not reside at home. Oshkosh can learn from Toledo; Toledo can learn from Chicago; and mighty Chicago can learn mayhap even from the little consolidated school at the crossroads.

## School Equipment from the Manufacturer's Standpoint

Nelson C. Hunter, Chicago, Ill.

Those familiar with that naive classic of early Indiana—The Hoosier Schoolmaster—have a reasonably accurate picture or background from which to trace the American Renaissance in education and educational equipment. Romance may have a tendency to distort fact, yet old Squire Hawkins with his glass eye, straw-colored wig and store teeth was an incarnation of the “Deestrick Clerk” and Mrs. Means with the bed sheet for a tablecloth may be said to quite faithfully reflect the culture found in the “Deestrick.”

What the Hoosier Master may lack in historical accuracy in its description of the earlier schoolhouse may easily be gathered from writings of those and earlier days.

Barnard in his “School Architecture” published in 1848, says of the buildings: “They are almost universally bad, repulsive in their external and internal appearance and built at the least possible expense of material and labor.” Speaking of the seating he adds: “They are furnished with seats and desks not properly made, not adjusted to each other and not arranged in such a manner as to promote the comfort and con-

venience of the scholars.” From “The Country School,” a book published in 1893, we learn: “The end seats on these benches were particularly desirable because they were so built as to have a support there for the elbow. . . . To get to their places or leave them the boys would sit down, lift their feet and with a quick whirl swing them to the other side. . . . Against the wall ran a continuous desk accompanied by a backless bench. The scholars eased themselves of the discomfort of backless seats by turning and using the edge of the desk as a back support.”

If these brief quotations serve to throw any light upon the crude furnishings of the earlier schoolhouses, Andrew D. White, in one of his books, illustrates still another curious fact about schoolhouses, namely, the use to which a school building might be put. In northern Ohio, in about 1836, it was desired to use the schoolhouse to hold a debate on the economic advantages of railroads over canal boats. Permission was emphatically refused on the grounds that railroads were sacrilegious, for in the language of the

(Concluded on Page 96)

# Principles Governing Management and Accounting for the School Plant

Prof. Fred Engelhardt, University of Minnesota

The relationship existing between property and the assets of a public-school system was discussed in a recent article in this journal. In that article it was pointed out that including the school plant value as fixed asset in the same sense as is done in private business "may be misleading and may distort the true financial status of the school district."<sup>1</sup> This point of view does not detract in any way from the importance of property management and accounting. It places greater emphasis on the more important aspects of the school plant and an added significance to the reciprocal interdependence of property and the educational services that schools are to render.

The school plant includes all lands, buildings, and equipment used in connection with the operation and maintenance of a public-school system. Each element of property is presumably acquired to render some specific service or services related directly or indirectly to the education of the children attending school. The proper management of this property presupposes that each element made available for school use is selected because of its adaptability and fitness for the services to be performed. This would obviously apply whether the property under consideration is the selection of a school site, the construction of a school building, or the purchase of chairs for kindergarten use.

Selection and adaptability are intimately associated with the life of the property. Property has a more or less extended useful-service life. If the school plant and its various elements are to be closely joined with the educational service of the schools, an efficient application of the principles of selection must be made. Many problems of management and accounting, that require special consideration, arise out of these principles.

## Summary of the Principle Underlying Management and Accounting of Plant

The principles underlying the management and accounting for school property may be summarized as follows:

1. Those responsible for the administration of a public-school system must appreciate the important interdependence of the school plant and the educational function of the schools.

2. The life of each element of a school plant should be extended for continued use as long as the use is economical and the services rendered meet acceptable standards.

3. Standards and specifications for service, materials, and construction, as well as standard written instructions for the operation, maintenance, and use must be established and applied for all property.

4. Management must formulate the necessary practices and procedures to be followed in the purchase, storage, distribution, and accounting for property in order to facilitate use and provide maximum service at minimum cost.

5. Management must recognize that permanent and continued improvement in the administration of property and accounting can only be made by an intelligent factual study of the problems in their relationship to the services to be rendered, methods of financing their costs, and their service life.

## The Extended Life of the Plant

The importance of selecting property in the first instance with due consideration to its fitness for service requirements cannot be overemphasized. Faulty or inappropriate selection means constant "putting up" with property or equipment poorly adapted to its designated use.

<sup>1</sup>Balance Sheet in Public School Accounting. Fred Engelhardt, S.B.J.—August, 1925.

The economic loss in such maladjustment cannot always be expressed in money values, yet the inconvenience and annoyances may have a direct bearing on the effectiveness of the school-work. It requires courage to ask for funds for the replacement of unsuitable or nonusable property. It is frequently difficult to justify by cost analysis the replacement of obsolete elements of the school plant. A situation that may be obvious to schoolmen may make little impression on the taxpaying public. These factors make this principle a very important one.

Where school authorities are not fully responsible for the purchase of property or the maintenance of the plant the extended life of property has further significance as is pointed out in a recent school survey: "Members of the survey staff found many evidences of lack of adequate cooperation between the city property committee, which in Springfield has control of the erection, operation, and maintenance of school buildings, and the school committee and its executives. It is inevitable, when such an authority is set up, that such conflicts of judgment should occur. One does not have to believe that one side or the other is always right in order to reach the conclusion that efficiency in administration will best be secured by having the same authority that is responsible for the work that is done in the buildings given full responsibility for the erection, operation, and maintenance of these buildings."<sup>2</sup>

Many aspects of the school plant require specialized professional knowledge, engineering skill, and experience in dealing with schoolhousing problems. Where large sums of public monies are to be expended on properties, the use of such specialized assistance is in the long run the most economical procedure. Under no circumstances should the school plant be expanded without a careful factual study of service needs. Such an investigation will require a most thorough study of problems as methods of financing, service needs, and the effect of the financing program upon current, as well as future needs, and the ability of the community to support the projected plan.

In commercial practice the makeshift selection of property quickly expresses itself in performance and in production. In education, however, the many variables entering into the measure of the resultant effectiveness of the schoolwork makes this problem complex. The various elements of property are as directly related to the resultant achievement in many of our classrooms, as are the methods of instruction or the content of the curricula. These various factors must some day be related to the service use of property and their costs. In spite of the apparent difficulties, educational management must provide the solution if the schools are to have adequate property facilities for the most efficient use at minimum cost.

<sup>2</sup>Massachusetts. Survey Report (Springfield, Mass.) Public School System. Institute of Educational Research, Teachers College, N. Y. City, 1923.



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## Standards

One of the more important phases of plant management in education is the establishment of standards for the various elements of property to be used in a school system. The importance of such standards is at once evident when planning for the purchase, the distribution, the accounting, the maintenance, and the use of the various elements of school property. The standards essential are not only those of the service needs of the property in question but also those of materials, design, construction, placement, and selection. It is also implied that standard written instructions are made available for those responsible for or associated with the maintenance, operation, and use.

Much progress has been made in establishing standards for the service use of school buildings and grounds. The Strayer-Engelhardt standards<sup>3</sup> for elementary and secondary school buildings are generally being accepted in planning the plant program of public-school systems. These standards of service use can be directly correlated with the management of the school plant, the construction and location of new buildings, and the continuous checking up of the plant program in terms of educational service needs. The various elements comprising the grounds and buildings for a school plant are rated on the basis of scores allotted. The 1,000 points of a score card are distributed as follows among the major subdivisions:<sup>4</sup>

Elementary School	
I. Site	125
II. Building	165
III. Service Systems	280
IV. Classrooms	290
V. Special Rooms	140
Total	1,000

High School	
I. Site	100
II. Building	155
III. Service Systems	270
IV. Classrooms or Recitation Rooms	145
V. Special Classrooms	140
VI. General Service Rooms	140
VII. Administration Rooms	50
Total	1,000

In allotting a final score to any single building, the judgments of three judges scoring individually were utilized so that the final score is the composite of judgments rendered by three judges upon each of the items of the score card. It should be borne in mind that a building scoring 1,000 points is not an impossible ideal, but that modern school buildings have been erected in which practically all desirable standards have been met. Buildings which rate above 900 points have met, in most respects, the desirable standards of modern schoolhousing. Scores falling between 700 and 900 points indicate that conditions are fairly satisfactory, but that the buildings are deficient in certain important elements which can be improved in the course of time. If the score of a building falls between 500 and 600 points important changes should be made in order to improve conditions. The chances are that such buildings are failing to meet the demands made upon them by the education program or are in need of repairs, alterations, or major changes which, if made, will raise the ratings considerably. Buildings falling below 400 points in their scores have little to commend them. These buildings are obviously the ones which should be replaced as school building progresses. As a rule, they are the older buildings in a community and, in many cases, fail to meet standards of safety, sanitation, and lighting.<sup>5</sup>

The progress made in school-building design and construction is clearly pointed out in contrasting the buildings in Illustration 3. This progress is demonstrated in a more factual manner in the following table.

TABLE I Per Cent of Waste Area in Certain Selected Elementary School Buildings. Floor Area Compared with Standards Established for Service Use.					
Building	Year Constructed	Per cent of Floor Area in Excess of Standard Need			
		Class and Cloak Rooms	Halls	Floor Area Unused Sq. Ft.	Attic Basement Per Cent
1	1920	0	3	0	0
2	1893	11	29	10,280	20
3	1893	19	49	5,625	30
4	1893	18	51	7,200	40

<sup>3</sup>Standards for Elementary School Buildings—Strayer, G. D., Engelhardt, N. L., Teachers College, N. Y. City.

<sup>4</sup>Standards for Secondary School Buildings—Ibid. Providence, R. I. Report of the Survey of Certain Aspects of the Public-School System. Institute of Ed. Research, Teachers' College, 1923.



ILLUSTRATION 1. ADEQUACY AND SELECTION

Plant requirements should be anticipated. When the above site was selected and the school built, but one old house existed on the block in the rear. This block is now being built up. The school board must now go four blocks from this school to secure enough vacant land for a playground.

The data in this table are the calculated floor areas of certain selected buildings. The data were derived from the blue prints of the buildings selected. The minimum standard floor area to accommodate the same enrollment in these schools was calculated as recorded in the above table. The significance of these figures is more apparent when the extended service life of a school building is considered. The increased cost of maintenance and operation due to this unnecessary additional floor space is no small item.

tinuous service use in order to insure health and comfort.

Faulty methods of operation are frequently the cause of unnecessary damage and may shorten the life of permanent equipment in the schools. Standard written instructions and a trained personnel are required if this work is to be done effectively and efficiently. Reeves<sup>7</sup> has standardized the work of the janitor by a careful study, through a job analysis, of the work to be done. Womrath<sup>8</sup> has standardized the organization, trained the staff, and has formulated detailed written instructions for those responsible or associated in the care and maintenance of school properties. To accomplish this he has developed a school in which employees are trained for the various janitorial and engineering positions.

#### Use of Property

With the changing teaching personnel and the large numbers and variety of children that use the public school, an added responsibility is placed upon management. The schools must prescribe the necessary instruction to children in the use and care of property. This instruction should be a part of the regular school program. For example, the proper care and use of equipment in a laboratory is as much a part of

<sup>7</sup>An Analysis of Janitor Service in Elementary Schools. C. E. Reeves, Teachers College Publications, New York City.

<sup>8</sup>Rules and Regulations for Janitorial-Engineering Service. G. F. Womrath, Minneapolis, Minn. School Janitorial-Engineering Service. G. F. Womrath. School Board Journal, February-July, 1925.

Progress is also being made in the selection and design of classroom equipment. The following table shows the economies resulting in furnishing a high-school building with a modified design of furniture.<sup>6</sup> Only eight different pieces of furniture are listed in this tabulation.

#### Standards of Care and Use

Property must be kept in condition for con-

<sup>6</sup>Minneapolis Public Schools. Annual Report, 1923-24. Page 128.



ILLUSTRATION 2...A MAKESHIFT AND A MODERN SCIENCE LABORATORY

With present methods of school accounting it is difficult to relate educational services and costs. The time must come when educational administration will be able to justify the practice or show the financial loss resulting from continued use of inadequate or makeshift educational equipment.

the scientific training of a student as any other phase of instruction. Many thousands of dollars of property in the form of textbooks are loaned to students. Instruction in use of this property and supplies is not only necessary to the economic administration of the schools and the proper preservation of property, but is essential in developing proper attitudes in every citizen toward public goods.

Instruction should be provided throughout the school system for inculcating a normal, careful respectful attitude toward the use and care of common property. Public-school administration should provide a means of reporting and charging losses or damages resulting from the careless or willful negligence of the student or employee. The community at large should not be held for unnecessary expenditure of this sort.

There is no doubt but that the cleanliness and morality of school children is closely associated with property and its care. One has only to observe the toilet facilities and sanitary supplies provided in some public schools to be convinced of this fact. A recent survey staff found, in a certain school building visited, that all the towels and paper supplied in the toilets had been used up at 9:30 one morning. When questioned about this matter the janitor replied, "Those are my orders. If the little 'dagos' can't take care of the paper properly, it's not my fault if they have to go without for the rest of the day." Property management is in many of its aspects closely associated with good instruction.

#### Quantity

Much waste and inefficiency results in the failure to consider the question of quantity. Surveys often reveal conditions where each school building in a system is furnished completely with equipment, or such materials as supplementary readers which have only a periodic use. The questions of quantity are, in fact, questions of adequacy and selection. A well-planned central storehouse with the proper means of distribution may in many cases provide the most effective service for special equipment, and make it possible to provide a liberal variety of instructional facilities at minimum cost. The same plan will not necessarily hold for all situations, and each school system must study its local problems and work out procedures accordingly.

#### Reuse

Individually and collectively the public is very sensitive to the misappropriation and misuse of funds. The public is also very critical regarding the expenditure of additional funds. After the approval and the expenditure of money, there is frequently an absolute indifference as to the future use of the funds or the service they render. Property has a cash value just as real as the money that purchased it. If

not suitably cared and accounted for property is subject to loss as is cash. Decrease in property values are direct money losses.

In the process of use property may be only in part worn out or destroyed. The remaining parts may be salvaged, stored, rebuilt into usable property, priced, and again rendered fit for service. Good school management will provide the necessary arrangement where these things can be done and where accounting will supply the facts by which the economy of the procedure is or is not justified. Cost reports will also provide the data for repricing and for crediting or charging when reuse is contemplated.

#### Multiple Use

In the campaigns for the wider use of school buildings it has been consistently pointed out<sup>9</sup> that these buildings are empty approximately three quarters of the time. School buildings are adaptable to more than regular day-school use. The school plant is now being used in many systems for evening classes and for many of the social and recreational activities of the community. It is highly desirable that buildings be so used. It is also desirable that these factors are taken into consideration when new buildings are contemplated.

When schools are used for other than regular schoolwork, the cost of operation and maintenance should be prorated to the activity benefiting by the service. It is not fair to charge these expenditures to the cost of day schools. Accounts should be established for these general community activities and reports should show the expenditures made and the cost of maintaining them. This prorating of cost should reduce the general overhead charge carried by the day school.

This procedure holds for large auditoriums, gymnasiums, or swimming pools when they are constructed especially to meet multiple use. The public should know that the additional capital burden is not for day schools alone. The usual procedure of accounting should not be followed, that is, by charging all the expenditures to elementary or secondary education. Multiple use of school property is highly desirable, but the cost should be prorated on the basis of the services rendered.

School building standards, multiple use, and the plan of the school organization are problems that school-plant management must consider together. This is especially true for the junior and senior high school or the school buildings in the smaller communities which are designed for the elementary, junior, and senior high schools. A large capital loss ensues and the community carries an unnecessary overhead when school buildings are not functioning at their maximum usefulness. High schools used within 85 per cent or more of full capacity are exceptional. The organization of the school programs in these schools is generally quite excellent. In the study of the capacity and use of high-school buildings, Packer states that "every one of the buildings included has an enrollment far in excess of its originally planned capacity. Such a situation means primarily that many rooms in these buildings are oversized and secondarily that relatively little care was taken in planning the buildings in terms of the needs of the different activities."<sup>10</sup>

The platoon school is an interesting adaptation or adjustment of the elementary school organization to secure greater service use in the school buildings. This is especially adaptable in larger cities. The following use is made of the rooms in a 24-section platoon school:<sup>11</sup>

<sup>9</sup>The Wider Use of School Plant—C. A. Perry, Macmillan.

<sup>10</sup>Housing of High-School Program—Packer, Paul C.—Teachers' College Publication, New York City.

<sup>11</sup>Platoon School in Detroit—Spain, C. L. Detroit Education Bulletin, Jan., 1923.

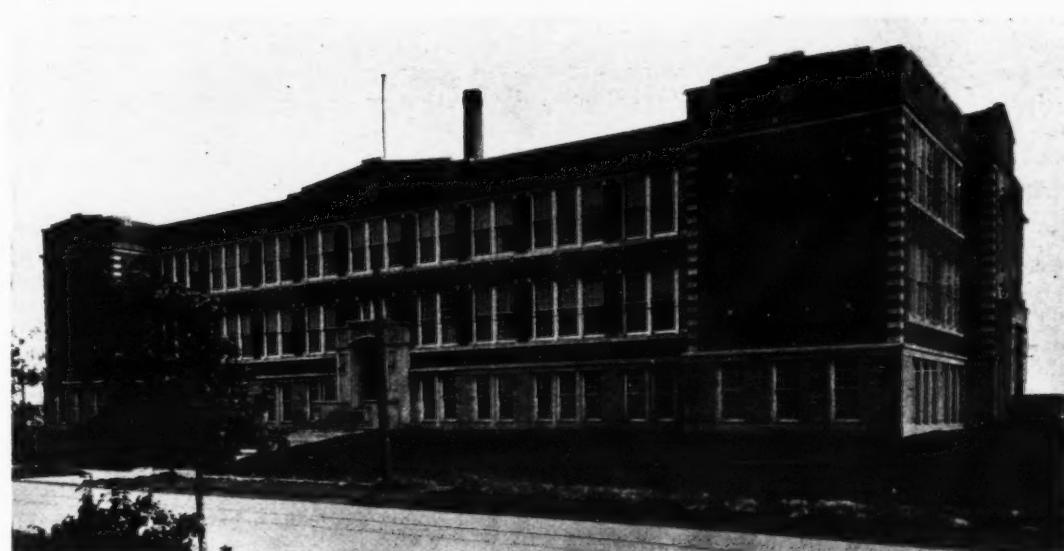
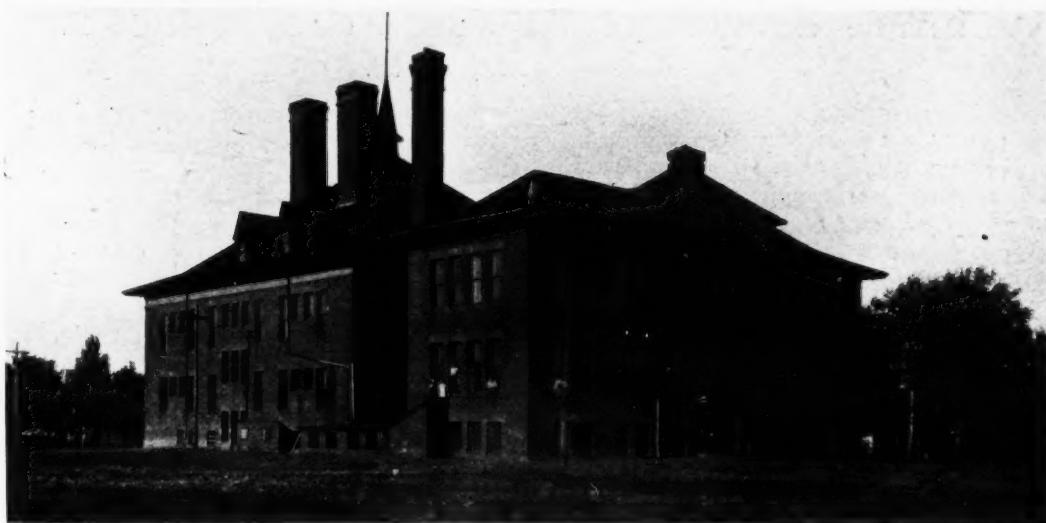


ILLUSTRATION 3. TWENTY-FIVE YEARS OF PROGRESS IN SCHOOL-BUILDING DESIGN AND CONSTRUCTION

Note the roof, the lighting, and the general plan. The establishing of standards for school-building construction and design have contributed largely to this improvement.

Percentage of Time Each Room is in Use in a 24-Section Platoon School		Per Cent
Home Rooms (12)	.....	100
Auditorium	.....	100
Gymnasium	.....	100
Literature (2)	.....	100
Science (2)	.....	100
Music	.....	80
Art	.....	86
Library	.....	70
Manual Arts (2)	.....	66
Play	.....	90

In modifying schools to meet this type of organization the capacity in larger buildings has been increased as much as one-third over the original capacity.

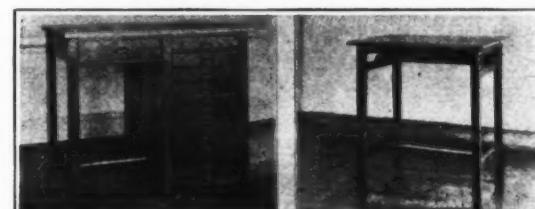
Not only should buildings and grounds be designed and constructed for multiple use, but laboratories and special rooms should likewise

be so planned. In planning the facilities for a small high school multiple use is especially desirable. An interesting illustration of multiple use of special rooms is the more recent designs of equipment for science laboratories.<sup>12</sup> Packer in analyzing room requirements of high-school programs points out that "specially equipped rooms which preclude other than one-purpose use result in tremendous waste even in large schools. In the schools with small enrollments it would be practically impossible to justify the loss due to this factor. Every effort should be made to reduce this loss by planning for the largest maximum combination use possible."<sup>13</sup>

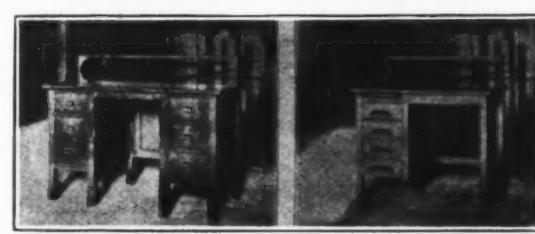
Care should be exercised when adopting the plans proposed for the multiple use of school buildings, and the equipment of classrooms. Many plans in their original conception appear to be economical and satisfactory for extended services, but when executed, are quite undesirable for all or any one of the contemplated activities.

#### Classification of School Property

To facilitate the purchase, distribution, and accounting for school property a complete classification is necessary. Such a classification should include all the elements of the school plant. There should be uniformity in nomenclature. Articles should be clearly defined and in such language as will be understood by all. This is essential if a uniform property accounting system is to be developed for all school plants. A standard classification contributes largely to the efficiency and use of property



Drawing Table. Drawing Table Redesigned.



Bookkeepers' Desk. Bookkeepers' Desk Redesigned.

ILLUSTRATION 4

Progress made by one school system in modifying the design of high-school instructional equipment.

<sup>12</sup>Description of Science Laboratories in Lincoln School, Gleim and others, Teachers College Publication, New York, N. Y.

<sup>13</sup>Housing High-School Programs—Packer, Paul C.—Teachers College Publication, New York City.

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## Woman's Service on the Board of Education<sup>1</sup>

Rita Knowles, Moline, Ill.

There is a challenge in the minds of a great many men as to the qualifications and the personal equipment of women to make them valuable or helpful members of a board of education. There are many reasons for this challenge or feeling. Perhaps the women themselves are, in a large measure, responsible for it. Women have not been accepted or established in business or in public service for a long enough period to have discovered their particular place or usefulness in the scheme of things.

Woman's established and unquestioned place in the great plan of the universe has been in the home. There she has been for years the center of gravity in a little world of her own, where the daily program functions under her direction and guidance, and where society has long accepted her as supreme. But when woman steps out of her own small universe and imagines that she may still be the center of attraction in a different or larger sphere, her position often becomes unsteady. She has so long dealt with personalities and with all the details of her home problems, that her perspective in a wider field may be distorted. Personalities are likely to play too large a part in her efforts for service.

Many women feel that it is necessary to demonstrate at every turn that the feminine mind, *per se*, is not inferior. They look upon the men with whom they come in contact in business as rivals rather than partners.

There is still a decided sentiment that women should not enter into fields of work or service outside of the home—still the belief that men should retain their historic position of dominance. However, the woman who has learned that she should endeavor to supplement rather than supplant the parts that men play in business, is welcome and effective in any public service she seeks to enter.

The feeling that woman is not an established factor in the business world, that there is a question of her balance, of her responsibility or stability, fills many a man with the primitive terror of the unknown, when she crosses the border of his domain. He has an immediate fear or suspicion that there is danger of long established conventions being blown to pieces. Women now in various enterprises or fields of service, by recognizing the common prejudices and the reasons behind them, and by keeping within the sphere of things which they can do as well or better than men, can do more than any other factor to eventually overcome this attitude.

### The Woman's Place in the Operation of the School Plant

There are many problems in the operation of a school plant in which women are more vitally interested and about which they have a better understanding than men. Women are interested in the housekeeping operation of the school problem as it concerns the welfare of the child. They are interested in teaching children health habits, in the recognition of the need for fresh air, regular exercise, and in a systematic body-building program.

The board of education in Moline is composed of twelve members, nine men and three women, in addition to the president. In my experience as secretary I have worked with some ten or twelve women as board members. Thinking over the different experiences in connection with their service, I was interested to know what their views might be of their own experience. With the end in view of securing this information, I addressed a letter to each of these women, asking three questions: (1) From your experience on the board of education, what special or

peculiar service do you feel can be rendered by a woman member? (2) What aim or ambition of yours failed of realization? (3) What was the reason for such lack of realization?

The replies to the first question were singularly significant. Eighty per cent of the answers contained substantially the following three points:

As a home requires both the masculine and feminine influence for its best management so it would seem a system of schools needs both influences.

A woman member can better understand the problems of the woman teacher in her relation with children.

Women are more keenly interested in having healthful surroundings and conditions for the children than are men.

Question number two did not produce quite such a similarity of answers, though more than half of the aims or ambitions mentioned were in the direction of increased care for the well-being of the child—more school nurses, doctors, and dentists.

However, the aims of several had been to increase the number of women members on the board of education. This ambition shows an aggressive or militant attitude which seeks to dictate, and which excites an antagonistic attitude on the part of the men.

The replies to question number three were varied. The two reasons most general were that their ambitions had been peculiar to women and there were either not enough women on the board of education to carry through their ideas or projects, or else a lack of funds, which is a reason for so many things with so many boards.

One answer to the third question came back with the assertion that when men are in the majority they either patronize or bulldoze the women. This attitude on the part of a woman member precludes the satisfactory accomplishment of any project she might promote. The feeling that men are antagonistic to the views or ideas that women offer in affairs of business is a fundamental error.

We may admit the fact that they are not adequately equipped by a background of years of experience to carry on unaided, the business affairs and administration of a school system, yet they do possess certain qualities and interests which make their opinions on many phases of the work very valuable. Men are ready to recognize this fact, and are willing and glad to accept their opinions.

### The Most Important Quality of the Woman's Service

Perhaps the most pronounced quality which asserts itself as a valuable asset to the woman's service on the board of education is the instinct of motherhood. This is exhibited in the interest shown in the welfare of the child. A woman member is extremely interested in the health and happiness of the child. Her attention is particularly attracted to the things that promote this condition. Women are alert to the need for special departments for the child who does not fit in with the regular curriculum. Their interest in open-air rooms, separate classes for crippled or deaf children, and in all corrective measures, is keen.

The consideration that a woman gives to the sanitation of a school building, not from a technical standpoint, but from the viewpoint of good housekeeping, makes her service a decided value in this connection. The housekeeping operation of a school system, both as it pertains to cleanliness and attractiveness, finds the woman's mind peculiarly sensitive. She realizes the effect and

considers as very vital to the child's welfare the influence of pleasant environment.

### The Sympathetic Factor of the Woman's Service

Another quality which women possess more than men and which is an important factor in the smooth functioning of a school system, is a sense of sympathy. The woman member through this attribute can often smooth out or remove a difficulty with entire satisfaction, where a seemingly logical and reasonable but less sympathetic solution of the same problem by a male member might aggravate the situation.

The individual looms large in her vision and appeals to her more forcefully than the routine of the schoolroom. She sees the case detached from the group and views it as a problem requiring special procedure. She reposes faith in the individual and tempers justice with mercy.

The woman's sympathy enables her to deal more gently with the problems that arise between the three principal factors involved in the management of a school system—teacher, pupil, and patron. A difficulty pleasantly and cheerfully overcome is immeasurably more profitable than a forced settlement and insures future confidence and cooperation on the part of all concerned.

The only danger in this characteristic lies in the fact that unless the proper balance is present, sympathy might override wisdom or even justice.

Patience is a virtue which usually is more distinguished in the woman than in the man, and often proves a most valuable attribute to the member of a board of education. There are numerous items of detail both in the housekeeping operation of the school plant and in the daily problems of the schoolroom between teacher or child that call for sympathy and patience that these peculiar characteristics of the woman make her best able to meet.

Added to this quality is the fact that women who choose to enter public service have more time to devote to these details that require deliberation, and consequently can give more thorough service than a male member who is occupied closely with the demands and cares of his own business.

### Woman Member Explores New Fields and Projects

A fourth quality which is peculiar to women is due to the fact that they are free from tradition and apt to be less conservative than men. They are willing and anxious to explore new fields and to promote new projects. This characteristic proves an asset to service on the board of education when it is used under the advice and direction of a trained, well-experienced, and tactful administrator.

It is true that the woman who would advocate testing in the schoolroom every new or modern project that is presented to her without having fully considered its merits or its consequences, would be a source both of annoyance and danger. However, as much or more harm might be done by the conservative, tradition-bound male member who is prone to accept the standards of education of his father as equally satisfactory and inclusive for his son. This impatience of women at a standstill policy—a policy of nonprogress is an advantage which is recognized and appreciated by trained minds in education.

### Qualities of Women are Valuable Assets

The qualities peculiar to women are their most valuable assets as school-board members, and from the standpoint of benefit to the child, are worthy of encouragement and consideration.

Women have proved their efficiency in all of the professions. They are making a place for themselves in the world of business and educa-

(Concluded on Page 154)

<sup>1</sup>Address before the National Association of Public School Business Officials, Philadelphia, May 20, 1927.

# Shall We Standardize School Equipment and Supplies?

G. E. Irons, Chief of the Bureau of Standards, Cleveland, O.

The problem of standardizing school equipment and supplies is not the same as that of standardizing machine parts or other manufactured commodities for general use.

Before discussing the problem as it appears with school equipment and school supplies as factors therein, it may be well to look at the process of standardization as it is being accomplished in industrial operations to see what lessons may be learned from that procedure.

The United States Department of Commerce and the American Engineering Standards Committee have apparently achieved marked success in persuading business men and manufacturers that continued prosperity depends in no small measure upon elimination of waste, and that this elimination in turn depends largely upon the simplification (reduction in number of varieties) and standardization (agreement as to the varieties to be retained) of manufactured commodities.

In view of the personal prejudices involved, the changes in manufacturing methods sometimes required, the difficulty of securing agreement as to proper standards, and the further difficulty of assuring conformance with the standards after they are adopted, the achievement of the national standardizing bodies to date is really of tremendous significance.

The advantages of standard electric-light sockets, standard pipe-fittings, or even standard bases on vacuum tubes for radio sets, will be admitted by anyone. The advantages of reducing the number of varieties of hotel chinaware, for example, from 700 to 160 (as reported by the Department of Commerce in 1924) may be less obvious, but will be conceded by most persons after they have given careful thought to the matter. But the idea of "standardizing" educational *equipment and supplies* meets with considerable resistance because it seems to carry with it, in many minds, an implication of standardization of educational *processes* as well.

## What May Be Standardized?

Standardization of educational methods is to be deplored because, using the words of Dr. W. H. P. Faunce, president of Brown University, in his baccalaureate sermon, June, 1924, "Standardization typifies a 'drab,' monotonous level of life, but individuality stands for variety, invention, and progress." The late Dr. Charles Eliot of Harvard also raised his voice against "standardization" as a stultifying influence.

In reply to such objections, Mr. C. E. Skinner, chairman of the American Engineering Standards Committee, has replied in these words: "The objections of Dr. Eliot . . . were not to standardization of the raw materials and the instrumentalities of production, but to that of human habits, customs, and methods of work."<sup>1</sup> This statement seems to express the feelings of most proponents of national standards for material goods.

It may be true that there exists already in the United States an undesirable degree of standardization of "habits, customs, and methods of work." The distinction pointed out by Mr. Skinner should be kept clearly in mind. Those who strive for more intelligent *individuality* in "habits, customs, and methods of work" are not inconsistent if they uphold at the same time the principles of *standardization* of manufactured commodities.

In objection to this position, one might say that standardization of commodities will certainly tend to reduce individuality in "methods of work." Perhaps the advocates of standardization will admit that this is true in some measure.

What are the advantages of standardization of manufactured commodities? We ordinarily think of them only in terms of economy and convenience, but there are certain other advantages not so frequently recognized but very real, such as the following (adapted from the suggestions of Mr. F. J. Schlink, assistant secretary of the American Engineering Standards Committee):<sup>2</sup>

Proper standards will

- a) Tend to eliminate indecision.
- b) Tend to eliminate purely traditional practices.
- c) Provide a definite point of departure for new research.
- d) Simplify the buyer's problem and raise the standard of salesmanship by focussing attention upon the fundamentals.
- e) Protect the buyer, who ordinarily can have no detailed technical knowledge of the wide range of articles involved.
- f) Make possible better products because of economy in machinery, materials and manufacturing methods.

Every one of these advantages is of particular importance to a large school system because of its scattered organization and the wide variety of opinions existing among school principals and other administrators as to what equipment and supplies are best suited to carry on the processes of education.

## Value of Standards to Schoolwork

Admitting the value of *proper* standards, the great problem facing anyone who attempts to direct this work in a school system is to avoid inadequate or unduly restrictive standards on the one hand and, at the same time, to keep a careful watch on excessive individualism. In other words, how can the advantages of proper standardization of the material tools of education be secured without hampering teachers in their fundamental task of teaching children?

There is an unmistakable tendency toward standardization in the field of education, at least insofar as the material tools of education are concerned. School buildings in many large cities are being reduced to a few standard types for elementary, junior high, and senior high schools. The component parts of a school building—the "educational units" as they may be called—are also being reduced to "typical layouts" which show the arrangement of the equipment within a typical room for each activity of the curriculum. Thus, a given city may have "typical layouts" for printshops, libraries, wood-working shops, laboratories, etc. Even where

<sup>1</sup>"Mechanical Engineering," August, 1926.

<sup>2</sup>For a full statement, see "Mechanical Engineering," July, 1925.



the buildings are not entirely standardized, the "typical layouts" may serve to guide the architect in planning the new buildings so that they will approach the ideals expressed in the "typical layouts" as nearly as may be.

In Cleveland, the process of standardization of equipment and supplies is in the experimental stage. Many "standardized buildings" have been adopted in the past and the latest efforts of the educational and building authorities have resulted in new elementary- and junior-high-school standard plans which have materially reduced the cost of construction without sacrifice of educational facilities. The attempt to produce thoroughly satisfactory standards of equipment and supplies, and to bring into being "typical layouts" of the kind mentioned, is still in its infancy, however.

This undertaking is not a simple one in Cleveland, with an educational department headed by the superintendent of schools, a business department (responsible for the physical property of the school system) headed by the director of schools, and a finance department headed by the clerk-treasurer, the board of education itself acting as final arbiter on questions of policy.

## Standardization in Cleveland

A "Bureau of Standards" has been created to provide a coordinating element in the production of standards of equipment and supplies which will be satisfactory both to the educational and to the business authorities. For administrative purposes this bureau is located in the office of the director of schools, but the chief of the bureau is classed as a member of the superintendent's staff assigned for duty in the business department.

The enabling section in the administrative code, under which the bureau of standards operates, is as follows:

Section 154—There shall be in the office of the Director of Schools, a Bureau of Standards to be administered by a Chief who shall be selected by the Director and Superintendent of Schools. The Bureau of Standards shall be responsible for the preparation for the approval of the Committee on Housing and Supplies of standard schedules of equipment and supplies required for each activity of the School System, insofar as such schedules are practicable and desirable; and shall make recommendations as to the standardization of all articles called for by such schedules; and shall cause to be prepared typical layouts showing the ideal arrangement of equipment, and floor space requirements of educational units for each activity, the word "activity" being defined as any group of functions which may logically be considered as a unit, for the purposes of standardization.

Without going into the details of the procedure being followed, the fundamental steps may be outlined thus:

1. It must be determined, first, with the co-operation of department heads, supervisors, principals, and committees of teachers, what articles of equipment and supplies are required to carry on any given activity such as printing, social science, home economics, or the like. A list of these articles is prepared by the bureau of standards in collaboration with those directly concerned. After discussion and revision of this list to a point of common agreement, if possible, it is finally presented to a committee of the board of education for final approval. The bureau of standards acts in the dual role of the secretary who collects opinions—divergent or otherwise—and attempts to harmonize and crystallize them, and the research agent who does creative work in assisting the department heads to arrive at results consistent with the best interests of the school system as a whole.

With respect to "equipment," the above-mentioned list of articles carries with it a definite

allowance for number of articles required for a typical unit of the activity under consideration. Thus, a chemistry laboratory "schedule" may call for four laboratory tables, each accommodating eight students, six fume hoods, one water distilling outfit, etc.

#### Limits on Amount of Supplies?

With respect to "supplies," it is not entirely clear whether it is desirable to attempt to set limits as to the number of articles to be furnished for any given service. It may be said that such an attempt seems unnecessarily restrictive, provided there is budget control of the amount of money each school principal may spend for supplies. It also seems somewhat doubtful at this writing whether this laborious task would justify itself, even in terms of money saved. Certainly, the idea is not welcomed by many teachers and principals, who feel that standardization carried to such extremes is obnoxious in a school system.

In order that the varying requirements of the same activities may be provided for, the standard schedules of supplies must allow some liberty of judgment to the administrative officers. Taking band and orchestra instruments as an example, it will readily be seen that the minimum outfit of essential instruments to be furnished by the board of education for a newly organized band would be inadequate for a thoroughly trained band of several years' experience. Therefore, two distinct lists of standard instruments are included in the schedule covering this requirement: One list covering the minimum requirements and another list of additional instruments from which desired instruments may be selected when needed, in the judgment of the directing supervisor of music and the superintendent.

In some similar way, it is our intention to construct our standard schedules of equipment and supplies so that the instructor in advanced chemistry in a technical high school, for instance, will not be hampered and delayed in securing his supplies "because they are not on the standard list."

#### Selecting Standard Articles

2. The list or "schedule" of equipment and supplies for a given activity having been approved by the school-board committee, the bureau of standards must study, individually, the items included in this schedule in order to recommend the specific articles which will best meet the educational and service requirements without extravagance. Each article must combine suitability with durability, and if good appearance and moderate cost can also be included the ideal results are obtained.

This study involves not only consultation with members of our own educational and technical organizations and their approval as well, but also discussions with authorities outside the school system, study of the literature relating to practice in other cities, and technical study of competing commodities on the market. If no satisfactory articles are commercially available, we must produce our own standard detail drawings and specifications and have the desired articles made to order. In most instances, however, regular stock products are preferred because of lower costs.

The recommendations of the bureau of standards are embodied in brief "standard descriptions" which, after approval by the school-board committee, become the bases for detailed specifications and drawing prepared by other departments for purchasing or contract purposes.

As a part of the second step—the preparation of the "standard descriptions"—the bureau of standards must secure agreement as to the proper classification of each article under the respective headings "equipment" and "supplies." The line of demarcation between these groups is

very indistinct, in places, but by general agreement an arbitrary classification may be established. A general understanding of such a classification will eliminate many misunderstandings as to the code numbers to be used in writing requisitions.

#### Typical Equipments

3. Having completed steps one and two, the third step is to take the approved "schedules" and "standard descriptions" of equipment and work out typical layouts, showing the ideal arrangement of the equipment in typical room units. The responsibility for these typical layouts now lies with our architect, who is also commissioner of the division of housing. The bureau of standards acts in an advisory capacity, in order that the architect may have the benefit of the research data accumulated by this bureau.

The typical layout for a printshop in a junior high school will show the arrangement of the approved equipment in a room having an approved area.\* It may also carry on the drawing a list of the approved articles by name for easy reference.

The final standards covering a printshop will probably include:

- a) A typical layout for a junior-high-school printshop.
- b) A typical layout for a senior-high-school printshop.
- c) Lists of approved standard equipment for installation in each of these shops.

d) Lists of approved supplies for use in these junior and senior activities. These lists may, or may not, indicate a quota for each item of supplies.

The question will no doubt be raised at this point: "How are standards to be revised?"

The physical task of fixing standards is such a tremendous one that standards properly arrived at should not need to be quickly changed; nor can consideration be given to every request for change if the main work is to be accomplished. Standards may be revised for good cause, however, with the approval of the

director of schools. It is hoped that committees of teachers may become permanent aids in this work, to the end that desirable articles may be added to the list of standards as they become necessary. Principals or department heads may requisition untried articles for experimental purposes, and it is the duty of the bureau of standards to follow up such experiments and record the results.

A procedure is also under consideration whereby teachers can register their complaints as to equipment or supplies, through their supervisors, with the bureau of standards. In this way, mistakes will be rectified and those using the articles standardized will have full opportunity to suggest betterments.

#### No Interference With Purchasing

Finally, it should be said that the activities herein described do not interfere with current purchasing or installation of equipment. The bureau is working on a definite schedule of activities, taking up one activity at a time, and until a given activity has been completely covered, the purchasing authorities follow whatever precedents they may already have. In this way we avoid the delays which would arise if work were held up while standardization was accomplished on questionable articles.

To summarize:

It is believed that the equipment and supplies of a school system may be advantageously standardized without harmfully restricting the initiative of teachers or principals. The standards must represent the crystallized experience of the most capable people in the system. When once adopted, such standards will (1) tend to eliminate indecision, (2) tend to eliminate purely traditional practices, (3) tend to provide a definite starting point for further research, (4) protect the buyer, (5) give the seller a definite basis for bidding.

Standards must be revised as needed in order to meet changing conditions, but the need for change must be clearly shown. Changes in standards, like change in a constitution, should not be too easily consummated.

## Balancing the School Budget

Charles H. Chesley

Every man and woman of progressive mind will agree that the public school is the last place to try niggardly methods of financing; nevertheless, many who have had considerable experience in school administration and who also know something about how taxes are assessed and collected, wonder how far we can go in the way we are headed without meeting with disaster. Unfortunately, we find a few men and women who like to hark back to the old days when the teacher was paid a microscopic salary and there was no such creature as a superintendent. They tell us how efficient the old schools were and refuse to consider evidence presented to support the idea that teaching methods have improved. Naturally, they are unable to comprehend the obvious fact that their own ignorance of progressive ideas is the best proof that the schools of other days were sadly lacking in certain fundamentals.

We are facing an era of expansion in school ideas. Things which were never thought of a few years ago are now considered part of the regular activities of the public school. The school official cannot hold back the tide of advancement, although many voters seem to think he ought to. He is in the position of the ancient monarch who ordered the tide to stop. In words of the vernacular, "everybody is doing it," and we have got to get out of the way or be engulfed.

I would not be understood to say that I am not in accord with progress. On the contrary

I am heartily in agreement with many of the new methods which have been introduced. When I stop to think how recklessly we vote and spend money for national defense, even from a foe who is little more than a myth, I come to the conclusion that education, even to the college curriculum, should be provided for every boy and girl in the land. There should be no limit to the possibilities for study by the ambitious boy or girl. Education is our surest defense, if we do it in the right way. Ignorance is a more deadly enemy than any foreign potentate.

As school officials, we have the task of making both ends of the budget meet. We plan as best we can before the appropriations are made, trying to figure against any and all eventualities, and then find that an emergency appropriation is necessary the following year. We are faced, on the one side, by the desire to keep the tax rate low, and, on the other, by the possibility of not asking for enough to carry us through.

A slogan which seems to have captured the public fancy is "more economy in public affairs." The trouble is that many of the high-salaried officials are the last ones who want economical methods put into effect. "Economy" is a good word to play upon the public fancy and it is an awfully good thing for the other fellow. We cannot do our work for less. Oh, no! Far be it from the writer to begrudge the superintendent or public official his hire. A good man deserves a good salary. I do believe, however,

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# The School Board and the Superintendent

Roy R. Roudebush and John Dale Russell

In contrast with the duties of the school board, which have been described as "legislative," the duties of the superintendent may be described as "executive." He has, in and of himself, practically no authority except such as has been delegated to him by the school board, and the authority he possesses is thus of an executive type.

His first duty is to carry out the policies agreed upon by the board. Loyalty to the board demands that he carry out these policies faithfully and in the spirit in which the board intended, regardless of whether he personally believes in or is sympathetic with the policy. In case he feels that an unwise policy has been adopted, his endeavor should be to convince the board that the policy is unwise, rather than to attempt to defeat the policy by failing to enforce it.

There are a considerable number of duties devolving upon the superintendent which may be classed together under the heading of "recommendations to be made to the board." These duties include the following:

1. *Recommendations regarding the employment and dismissal of the personnel of the school system*, including principals, teachers, janitors, attendance officers, clerks, etc. Recommendations for employment should be based on a very careful study of the qualifications of the applicant, and a recommendation for dismissal should be amply supported by evidence of unfitness.

2. *Recommendations regarding salaries to be paid to the personnel of the school system*. Such recommendations should be based on a study of salaries paid in other similar school systems, together with a careful analysis of the particular qualifications and aptitudes of the individuals for whom salaries are being recommended.

3. *Recommendations regarding major items of school policy*. Such matters as the length of the school term, the type of organization, the curriculums and courses of study, the extension of the offering of the school system, and rules and regulations governing the schools, should be developed by the superintendent and by him recommended to the board for adoption.

4. *Recommendations regarding the expenditure of school funds*. The superintendent should be responsible for technical advice as to the suitability of every item of supply that is to be purchased, together with the quantity in which purchase should be made. In many school systems the superintendent is given authority to make actual purchases of materials that are not bought on competitive bids. Before contracts are closed for materials bought on competitive bids, the superintendent should make recommendation as to the suitability of the supplies offered.

## Budgets and Building Program

There is another group of duties of the superintendent which center in the giving of advice to the board.

1. In the case of the annual budget, although the responsibility is with the school board, the superintendent should prepare all the data showing the budget needs of the schools, and advise the board in all stages of the preparation and voting of the budget.

2. The building program for the schools, although a direct responsibility of the board, should have the benefit of direct and constant advice from the superintendent. This involves a very thorough and continuous study of the building situation on the part of the superintendent.

Besides these duties of presenting recommendations or giving advice to the board, there are a considerable number of duties in which the superintendent should be given full authority to act on his own initiative. In general, these duties are those connected with the purely professional aspects of the school activities.

1. The supervision of the work of all employees of the school system should be directly under the charge of the superintendent. This includes the supervision of principals, teachers, attendance officers, janitors, clerks, and all other employees of the schools. It is the duty of the superintendent to assign employees to their respective positions, to evaluate their services, which, for teachers, includes the issuance of the annual success grade, to encourage the professional growth of teachers and to enlist their assistance in the study of local school problems.

2. The entire matter of the discipline, promotion, and grading of pupils is a responsibility of the superintendent.

3. It is the duty of the superintendent to prepare the school programs, and arrange for and supervise all the special activities, such as athletics, dramatics, etc. This involves also the responsibility of a careful guard thrown around the schools to prevent unwarranted intrusions from interests desiring to exploit the schools for their own benefit.

4. The supervision of the school attendance is a direct responsibility of the superintendent. The school census, while a legal responsibility of the board, is in practice usually under the control of the superintendent. The issuance of working permits is definitely placed by law in the hands of the superintendent.

5. The actual preparation of reports required by the state board of education or other authority is the duty of the superintendent.

He should also be responsible for the preparation of all reports that come before the school board.

6. The direction of the office help, and the carrying on of the correspondence and business details of the school city is the responsibility of the superintendent. He should keep all the school records, including both the pupil records and the financial records. He should requisition supplies and should be responsible for seeing that sufficient quantities of supplies are always on hand.

7. It is the duty of the superintendent to see that the members of the school board and the citizens of the community are kept fully informed of the condition of the schools. He should be responsible for preparation of all data needed to present to the board and to the public the actual facts regarding the school system. Newspaper publicity should be given out by him. He should attend all board meetings and be prepared to present to the board the actual facts needed in the formulation of the policy of the schools.

8. The superintendent must bear final responsibility to the board for the proper functioning of the school system and of its employees. Since the employees have been recommended by him, and since he has supervised their work, any failure on their part reflects as a failure on the part of the superintendent, and the board should rightfully hold him accountable.

9. Finally, it is the duty of the superintendent to provide constructive educational leadership for the community. He must maintain intimate contacts with the community, present the cause of the schools to interested citizens when called upon to do so, and in every way avoid the life and habits of an academic recluse. At the same time he must keep informed about

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## A Classified Summary of Activities of School Boards and Superintendents

Activity	What the Board Does	What Superintendent Does
1. Employment of a superintendent	Selects and employs	Signs contract
2. Employment of principals, teachers, attendance officers, janitors, clerks, etc.	Approves or disapproves the recommendation of the superintendent	Recommends in writing to the board
3. Dismissal of personnel	Approves or disapproves the recommendation of the superintendent	Recommends in writing to the board
4. Fixing of salaries of personnel	Approves or disapproves the recommendation of the superintendent	Recommends in writing to the board
5. Fixing length of school term	Approves or disapproves the recommendation of the superintendent	Recommends
6. Setting up type of organization	Approves or disapproves the recommendation of the superintendent	Recommends
7. Establishing of curriculums and courses of study	Approves or disapproves the recommendation of the superintendent	Recommends
8. Setting up salary schedule	Approves or disapproves the recommendation of the superintendent	Recommends
9. Districting attendance	Approves or disapproves the recommendation of the superintendent	Recommends
10. Establishing rules and regulations	Approves or disapproves the recommendation of the superintendent	Recommends
11. Expending funds for current operation	Approves or disapproves the recommendation of the superintendent	Recommends, after investigation of suitability, also recommends quantity of supplies needed
12. Voting budget for schools	Studies, modifies, and passes budget	Prepares and provides supporting data
13. Setting tax levy for schools	Makes levy	Provides supporting data
15. Selection of sites for school buildings	Controls	
14. Development of building program	Selects	Advises
16. Planning of school buildings	Considers schedule of needs, investigates qualifications of architect, and employs him, considers final plans in the light of competent educational advice	Prepares schedule of needed facilities, advises with regard to adequacy of plans
17. Erecting new buildings	Receives bids, lets contracts, supervises construction, and accepts completed structures	Advises in all stages
18. Supervising all employees, including principals, teachers, attendance officer, janitors, clerks, etc.	Delegates responsibility to superintendent	Assumes full responsibility
19. Assigning employees to their respective positions	Delegates responsibility to superintendent	Assumes full responsibility
20. Disciplining, promoting, and grading of pupils	Delegates responsibility to superintendent	Assumes full responsibility
21. Preparation of school programs	Delegates responsibility to superintendent	Assumes full responsibility
22. Preparation of reports and publicity	Delegates responsibility to superintendent	Assumes full responsibility
23. Attention to the business details of the school city	Delegates responsibility to superintendent	Assumes full responsibility
24. Supervision of office help	Delegates responsibility to superintendent	Assumes full responsibility
25. Keeping school records, both pupil and financial	Delegates responsibility to superintendent	Assumes full responsibility

## An Examination Exemption System

Principal Crawford Green, Eldorado, Ark.

With the advent of the new type of examination, the intelligence and educational tests, current educational literature devotes less and less space to the old type of examination. Particularly is this true in regard to that corollary of the regular school examination—the exemption from examination. A search through the literature of recent years reveals only two articles touching upon the subject and both are adverse to the practice.

Considering the attitude of these articles and the absence of discussions of the subject, it is to be wondered if exempting pupils from examination is an educational practice to be frowned upon and ignored. Yet, despite this possible attitude the practice is still prevalent in certain schools and is looked upon with favor by the administrators.

Anderson<sup>1</sup> in his study of the effects of the exemption system in a certain high school points out two viewpoints of the problem of exemptions: 1. The effect of the exemption system upon teachers with reference to the rigorousness with which they grade pupils. 2. The effect upon the quality and quantity of work done by the pupils.

Anderson studied the distribution of grades by departments in his school for a period of six years, two of which were before exemptions were discontinued. He shows that during the years when exemptions were allowed, the distributions of grades tended to skew toward the higher marks in a very distinctive manner.

As a result of his study, Anderson deduced that in his school the exemption system played havoc with the teachers' grades, causing them to give more high grades than usual. Test study-habit records of the pupils in his school showed that the pupils devoted more time to study after exemptions were abolished than they did while the system was in force.

Anderson does not indicate whether any effort was made to control the grades of the teachers during the exemption system. It is recognized, in the experience of those administrators who have had experience with exemptions, that this is one of the real dangers of the system and must be watched closely. However, it is felt that it is not a factor which is uncontrollable.

Kimmel<sup>2</sup> denounces the exemption system in no uncertain language, saying "exempting students . . . is one of the most destructive customs that is tolerated in our public schools." He contends that exemptions do place a premium on a better grade of classwork, but they do not in this way offer an incentive to a better grade of classwork upon the part of all of the pupils. Kimmel feels that the good student should be required to organize his knowledge, as is necessitated by the examination. Another objection is that the work of the teacher is curtailed at the expense of the pupil, in the tendency to exempt 25 to 50 per cent, whereas Rugg's distribution curve indicates that only seven per cent should be marked "excellent." Thus marks are made more unreliable and standards are lowered.

### What the Advocates Contend

It must be realized that Kimmel is assuming that only pupils who would receive grades of "excellent" should be exempted, or that all who are exempted should be marked "excellent." This situation could best be met by a clearer definition of exemption standards and by provisions for exemptions to be given grades varying over the upper end of the grade schedule.

<sup>1</sup>Anderson, C. J., "Is the Exemption System Worth While?" *School and Society*, Vol. 3, pp. 357-60, March 4, 1916.

<sup>2</sup>Kimmel, Herbert, "Exemptions from Examinations and Grades," *School and Society*, Vol. 8, pp. 112-14, July 27, 1918.

Advocates of exemptions contend that proper supervision of teachers and their grades will eliminate the tendency on the part of the teacher to lighten her burden. It is further contended that exemptions serve as an incentive to the pupil and sets as a goal, attainment in the course, which is very desirable. With a flexible standard recognizing effort in comparison with ability, the poor student has an equal opportunity to attain the goal. It is commonly accepted in many schools as a system which produces favorable results to a certain extent, if properly supervised and controlled, and a system for the encouragement of better work among the pupils, for which most schools have no available substitute.

Many educators voice their objections to exemptions, yet permit them in their schools. This was shown in an advanced class in Peabody College in the summer of 1925, when 23 of 36 principals voiced their objections to exemptions, yet one-half of the class permitted exemptions in their schools.

However, the feasibility or advisability of exemptions is neither here nor there in this paper, the chief purpose of which is to explain the system in effect in the El Dorado, Arkansas, high school, the originator of which was Superintendent Donald MacQueen. No study has been made to determine the objective results of the El Dorado system or to determine to what extent do the objections of Anderson and Kimmel exist. Yet, in general, in the opinion of the principal and superintendent, the system is working satisfactorily, is not detrimental to the development of study habits, and does not tend to develop a larger percentage of high grades. The distribution of grades during the past year was fairly normal. It must be remembered that the above statement is mere opinion and with the exception of the grade distribution is neither corroborated nor unsubstantiated by actual data.

### Chief Features of El Dorado System

The chief features of the El Dorado system are:

1. The pupil must apply in writing for exemption.
2. He must answer certain specific questions in regard to his work and conduct.
3. His conduct must be passed upon by the entire faculty.
4. There is no arbitrary grade set for exemption.
5. The initial responsibility for exemption is placed upon the pupil, thus allowing him a chance to consider his work carefully.
6. The teachers only consider those who apply for exemption, thus somewhat checking the tendency toward wholesale exemptions.
7. The exemptions are made publicly in a faculty meeting, thus allowing the administrators opportunity to check unusual numbers of exemptions by individual teachers.
8. The grades of each teacher are distributed on the normal curve after each examination period and any noticeable skewness is called to the attention of the teacher for correction during the ensuing period.

Several days before examination day the pupils desiring exemption fill out an application blank, a copy of which accompanies this paper. These are then collected by the principal who has the record of each checked for unexcused absences, tardies and violations of the school night rule, after which the applications are submitted to the faculty as a whole. Two tardies is cause for nonexemption in one subject, and three for nonexemption in all subjects. Unexcused absences and infractions of the night

rule (pupils have to be in their homes after 7:30 p. m. on Mondays, Tuesdays, Wednesdays, and Thursdays) are also cause for nonexemption in all subjects.

The entire faculty of the school meets for the consideration of the applications which have not been eliminated by the principal for the above mentioned causes. If the conduct of the pupil, in the opinion of a faculty member, has not been satisfactory, the pupil is "scratched," that is, deprived of all exemptions. If his conduct has been satisfactory the teachers then pass upon the respective subjects for which exemption was applied. There is no arbitrary grade by which the teacher measures her exemptions, the only requirement being that the grade must be satisfactory. Thus, the pupil of low ability is given an opportunity for exemption. Hence exemption does not mean that the pupil receives the highest grade in the schedule for that period.

The exemptions granted are then read before the student body at the close of school upon the day before the examinations are held. Thus, even the exempted pupils are prone to make some preparation and review for the examinations for they have learned that often the very best pupils are "scratched" in the faculty meeting for breaches of conduct long forgotten by the pupil or for other causes, and that it is best to be prepared.

### Criticisms and Drawbacks

All pupils are required to fill out the upper portion of the exemption blank which makes it a "report" blank rather than an "application"

DONALD MACQUEEN HIGH SCHOOL STUDENT REPORT—FIRST QUARTER			
I herewith submit the following statements, which are given upon my honor:			
1. My studies are as follows and my estimate of my grade accompanies each:	.....	.....	.....
(Subject)	(Grade)	(Subject)	(Grade)
2. ....	.....	.....	.....
(Subject)	(Grade)	(Subject)	(Grade)
3. Have you studied regularly and systematically each school night?	.....	.....	.....
4. How would you describe your conduct in school and elsewhere?	.....	.....	.....
5. Do you own individually and have you in your possession the books of the above mentioned subjects?	.....	.....	.....
6. Have you kept the night rule?.....	.....	.....	.....
7. In what school activities have you taken part?	.....	.....	.....
8. State subjects in which you honestly feel that you deserve exemption.	.....	.....	.....
9. Have you reread your answers and consider that you have answered each one of the above truthfully?	.....	.....	.....
Respectfully submitted			
(Name)			

blank. The purpose of this is to have each pupil weigh and consider his work for the past term and to evaluate it as the teacher must do. Of course, this estimate is not taken into consideration by the teacher but it serves as an interesting factor in seeing how the pupil evaluates his own work. It may also be used for comparative purposes after the actual grades are determined. With the proper time available, the principal proposes to determine by these estimates the correlation between pupil prediction and the actual grade received.

It is realized that there are criticisms and drawbacks to the system. Pupils often apply with the hope of "lucking" through to an exemption through an oversight on the part of the teacher. Others are untruthful in their answers to the questions asked. There is a noticeable catering to the teachers during the period just preceding examinations. There is the subjective element on the part of the teacher in regard to her exemptions. An alert and conscientious faculty, imbued with a strong morale and holding forth high standards for their pupils, will reduce the bad results of the system to a minimum, which will be easily outweighed by the good returns of the system.

Advantages that may be mentioned are: That it places a worthwhile goal toward which the

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# Practical Suggestions for Saving Time in Requisitioning and Purchasing Supplies

Arthur J. Peel

The business that relates itself to the requisitioning and purchasing of material and supplies for schoolwork, demands no inconsiderable proportion of daily routine in the school administration offices of many large towns and cities; it is even an important duty in the routine of the school principal's office. Yet notwithstanding this fact, it is often one of the last matters to receive serious study and investigation at the hands of school business executives. In many school offices in which my professional calling has taken me, I have noted that while the executives are alive to the need for improved methods in accounting and cost-finding, the actual detail carried out in requisitioning and purchasing, with dependent records, is little changed, if at all, from that method which prevailed a decade ago. In many cases this may be due to long-established traditions which school officers are loath to change; but quite as frequently, it is the result of a lack of constructive thought, the matter being considered as too unimportant to demand real study. Sometimes, of course, it is due entirely to absolute ignorance of the waste of time and labor that actually results from antiquated and hidebound traditional practice.

That the methods by which supplies are requisitioned and purchased, and the records necessary, are worthy of critical study and reform, has been fully demonstrated by one school office at least, that of the City of Newton, Massachusetts. In Newton the important duty of purchasing supplies and material, budget control and record, as well as other business, is delegated by the superintendent to his assistant, who acts in the capacity of business manager and purchasing agent. The office of the business manager in this progressive city is rapidly acquiring a reputation for alertness to new ideas and improved methods. Last year we featured in these columns a form of budget control which was devised and installed by Mr. George Keller, the business manager, and which attracted the favorable attention of readers, and resulted in many inquiries, and some personal visits to Newton.

## A Simplified Requisition

The latest achievement has been to cut the time and labor necessary in the business of requisitioning and purchasing, just about one half of what it demanded under the old system—though the “old” system in Newton was in advance of many systems still in operation in other school offices. This was not accomplished by any spectacular coup—it seldom is, anyway—but by a careful and intensive study of small things, details, thinking in terms of minutes saved, where other people think only in hours. This recent development comes under two divisions, first in the form and manner of requisitioning and purchasing, and second, in the mechanics of recording purchases.

It has long been the practice of school principals and other requisitioning officers in Newton, to send in their requisitions for materials and supplies, on printed forms, on which the various supplies were grouped under classifications. This form, in itself, was a distinct advance in school business methods, since it eliminated the necessity of writing in the items required. It insured a common nomenclature for each item so that there was no danger of a teacher writing one thing and meaning another. It saved time. Every possible requirement is printed on the form of requisition, and all that the teacher or principal has to do is to indicate the quantity required, and sign his or her name to the requisition. But with Mr. Keller a thing

is good enough only until he sees, or thinks of, something better. In the Newton school system, each school is debited with the value of supplies and material purchased for that school, and this is effected through the medium of the priced requisition, the prices being taken from the list returned by the successful bidder. The business of pricing requisitions was simple, but not as quick as the manager thought it ought to be; having found the desired item on the vendor's list it was necessary to search for it on the school requisition; a few seconds, a minute or perhaps even more—70 items—30 seconds to find each—35 minutes—and—

Well, that's how the idea worked itself out with Mr. Keller; and he knew there must be a better way—there always is. Why not make the printed list of items sent out to vendors, identical with the arrangement of the items on the requisition form? By this means the position of “crayons, blackboard, No. 2 quality” will be in the same position on both lists and it will not be necessary to hunt for it on one or the other. This was not only reasonable, it was obvious!

But this was not all; we live in a day when even established traditions are questioned. For instance, many of us are prepared to swear by the principle of classification: we believe that the scientific way to list supplies and material is under logical groups, such as art-class supplies, commercial-class supplies, or what not, and that is exactly what had been done in Newton. Nevertheless it was discovered by actual experience, that notwithstanding the many arguments in favor of classification of supplies and materials, it took longer to locate an item under a classified group than it did to locate that same item in a strictly alphabetical list.

## Use an Alphabetical List

And this sounds reasonable, for the former plan demands *two* mental steps, whereas the latter demands only *one*. In the first instance we have to think, first of all, of the group under which that item is to found, and then the position under that heading in which the item is located. In a strictly alphabetical list in which envelopes are followed by erasers, erasers by flags, flag-holders, glue, hectographs, ink, and so on all the way down the line until we come

SCHOOL DEPARTMENT NEWTONVILLE, MASS.		Requisition No. ....	
Please send to ..... ..... for the ..... Department, the following goods.			
Quantity	Description	(The Word or Number and Description, in Case of Doubt, One Item at a Time, and Not Particularized.)	Name Under which to List Goods on Your List
	Gum, 1 pt. jar	Per jar	Each
	Hectograph, letter size, complete with ink and sponge	Per each	Each
	Hectograph Paper, 500 sheets in pkg.	Per pkg	Each
	Ink, Black, Powder, gallon	Per pkg	Each
	Ink, Color, Red, in quart bottles	Per qt.	Each
	Ink, Color, Red, in quart bottles	Per qt.	Each
	Ink, Red, pints	Per pt.	Each
	Inkwell, Teacher's, Single	Per each	Each
	Inkwell, Teacher's, Double	Per each	Each
	Labels, Dennison's #202	Per doz. dozen	Each
	Labels, Dennison's #206	Per doz. dozen	Each
	Labels, Dennison's #209	Per doz. dozen	Each
	Labels, Dennison's #213	Per doz. dozen	Each
	Labels, Dennison's #216	Per doz. dozen	Each
	Labels, Dennison's #201	Per doz. dozen	Each
	Lawson Duplicators, ruling, letter size	Each	Each
	Magnifying Glass, 1 1/2 x 10	Per pc.	Each
	Maps, McNaury, desk outline, 16 x 13	Per pc.	Each
	Markers, Sign and Price #11-1/2"	Each	Each
	Markers, Sign and Price #401-1"	Each	Each
	Marking Chalk, 1/2"	Per doz. dozen	Each
	Mending Tissue	Per doz. dozen	Each
	Murals, paper	Each	Each
	Murals, small bottles	Each	Each
	Name Cards, 100 in pkg.	Per pkg	Each
	Notebooks, open end	Per pc.	Each
	Notebooks, Stenographer's	Per pc.	Each
	Number Builders, Special, Building	Per box	Each
	Number Puzzles, Economic, Bradley	Per box	Each
	Oak Tag, 9 x 12	Per pkg	Each
	Paint, Chaser White	Per jar	Each
	Paint, Hall gray	Per jar	Each
	Paint, Hall's Liquid	Per bottle	Each
	Paint, Yehes, water colors	Per doz. dozen	Each
	Paint Boxes and colors, with #1 Brush	Per doz. dozen	Each
	Paint Brushes, #7	Per gr.	Each
	Paint Cans, Lipped	Per doz. dozen	Each
	PAPER	Per pkg.	Each
	Arch. Manila, 6 x 9, 1000 sheets in pkg.	Per pkg.	Each
	Arch. Manila, 9 x 12, 1000 sheets in pkg.	Per pkg.	Each

Appr. Bal. \$.....

Est. Cost \$.....

Requested by .....  
Form E-8

Approved.....

A PAGE OF THE ALPHABETICAL  
REQUISITION FORM.  
The original measures 8" x 11" and fits a loose-leaf  
folder.

to yardsticks, we can hop right onto the item we need, at one jump. Consequently the whole tradition of classifying supplies under headings, went by the board, and today the Newton school office uses a requisition form and a list to send to vendors, in which everything is listed alphabetically, regardless of its nature or purpose.

This simple but radical change has so greatly facilitated the actual work of pricing the requisitions, that it has reduced the work about 80 per cent, and expedited the completion of records by several days each month. Here, then is one example of what may be accomplished by a simple and almost obvious improvement. Not only did it result in a material saving of time, labor, and expense, but it has reacted very favorably on the accounting department, enabling the cost clerk to prepare her unit cost records promptly, and complete them several days earlier than heretofore.

The second improvement has to do with the method and mechanics of recording purchases. This was effected by the installation of equipment which provided visible stock-card records. The ordinary card records in which cards stand upright in wooden or steel cases, served their purpose well until something better was invented. Today there are several systems which provide complete *visibility* of a large number of cards or records at one time, and without handling. The unit installed in the Newton office occupies only a corner of a desk and stands perhaps 18 inches high, yet it contains literally thousands of records. A separate card is made out for each individual item used in any department of schoolwork. The cards lie flat in shallow trays which slide into the case when not in use. When the tray is withdrawn from the cabinet, the title of each item is immediately visible. All that is necessary when further information is required, is to lift the card that lies “clap-boarded” on top of the card required, and then everything recorded on the card can be easily read without removing it; and anything can be added to the card without taking it out of its place. Now the psychological effect of possessing a record so easily handled, is that entries are more likely to be made regularly and promptly. This is exactly what has happened in the Newton school office. Because it is done so quickly and simply, the details of purchases are entered *immediately* on the stock cards. In addition to the usual information—date, from whom purchased, quantities, and cost—these cards show the *name of the school* for which the material was purchased.

## Further Uses of Records

Merely as a record of purchases, this system would perfect, and did it serve no other purpose, it would be well worth its initial cost. Any inquiry as to where a certain brand of lead pencil was purchased, etc., etc., is answered immediately by a quick reference to the purchase card; the card doesn't have to be removed, put back, or even handled; it can never get lost or mislaid. But the utility of this form of record does not end here. The purchasing agent in addition to the duty of this office, exercises a control over requisitions and purchases by virtue of the fact that the responsibility of keeping within budgetary provisions also rests with him. Moreover, it is his business to know that consumption is normal, or if it isn't, why? These responsibilities predicate up-to-the-minute records. The usual procedure which would be followed to meet this need, would be to install another set of records which would reflect purchases of supplies, by schools, as separate from

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### NEW ADMINISTRATION BUILDING FOR PITTSBURGH SCHOOLS

The board of education of Pittsburgh has for some years occupied a suite of rooms in one of the downtown office buildings. The growth of the school system and the imperative need for larger and more adequate administrative headquarters has led to a desire for a building to be owned and operated by the school district. The board of education has recently obtained a suitable site, has selected an architect, and will begin immediately the construction of the building.

The building will be located in the Schenley district, in the heart of the educational section of the city. It will be one of the educational group of structures formed by the University of Pittsburgh, the Carnegie Institute of Technology, the Masonic Temple, the Young Men's Hebrew Association, and other prominent buildings adjacent to the entrance of Schenley Park.

The building is 300 by 135 ft. in size, with entrances on two streets. A feature of the building will be the arrangement of the halls on the street side, with the offices on the inner side looking toward a park in the hollow square. The arrangement eliminates the noise of street traffic and insures greater quietness and privacy to the occupants.

The building will be constructed of Indiana limestone and will be fireproof. The architectural style is intended to harmonize with the surroundings so that it will not only provide for the future needs of the school district, but will take its place among the civic improvements of the city.

The building will consist of four floors, three of which will be for immediate use, and the fourth held in reserve for future needs in connection with a proposed extension of the city. There will be 92 rooms for the various special departments of the administrative system, to-



THE NEW SCHOOL-ADMINISTRATION BUILDING, PITTSBURGH, PA. CONSTRUCTION HAS JUST BEGUN. together with a directors' room and an assembly room for meetings of the teaching and supervisory staffs. The repair shops and storerooms of the school system are within a few blocks of the office building so that all the administrative and business departments of the board are concentrated in one convenient location.

The building will be erected from plans prepared by Ingham & Boyd, architects, of Pittsburgh, Pa., and the construction work will be under the direction of Charles L. Wooldridge, Inc., consulting engineers, Pittsburgh, and James Bonar, superintendent of buildings of the Pittsburgh board of education. The building will be erected at a cost of \$840,000.

broad experience and knowledge of such matters.

During the first six months a large variety of work was accomplished by the utility man. This work included painting, carpentry work such as rebuilding bookcases, fixing doors, putting up sheathing, plastering, much work on plumbing, toilets, bubblers, tanks, some masonry work, etc. Many of these jobs were small, costing sometimes less than a dollar's worth of the man's time, but sufficiently foreign to the work of a janitor to have necessitated the employment of a special mechanic at two or three times the cost involved under the new plan.

A close tally on the cost of the work and materials was kept. At the end of the six months the following table of costs, estimates and savings was presented to the school committee.

Actual cost under the new plan, including wages and materials.....	\$ 693.50
Estimated cost by contract, etc., not including contractor's profits.....	1,023.03
Savings .....	329.44
Per cent of savings over estimates.....	32.2

The school committee at once saw that the plan was successful and the man was immediately engaged on a permanent basis. In addition, the suggestion was made by members of the committee that more men be secured for the summer jobs of painting. This was the result expected and hoped for, and in the summer of 1926 plans were at once made to use a crew of five men.

It so happened that estimates were in hand covering the rooms to be included in this summer's painting work. Four helpers were engaged and the general utility man acted much in the capacity of a foreman during the job. The estimates already at hand together with the actual costs are as follows:

Estimate 1.....	\$1,612.00
Estimate 2.....	1,688.00
Estimate 3.....	2,534.00
Actual cost .....	1,121.78
Saving over lowest bidder.....	490.22
Per cent of saving.....	30.4

An additional factor of importance was the absolute control that we had over the materials used.

It would seem that the above recital of facts concerning savings in costs might indicate that the plan of having a general utility man had shown its value even in a comparatively small town.

Other advantages are inherent in the plan. It is possible to carry on a more intelligent plan of maintenance in many ways. This man takes

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## An Experience in Maintenance

Frank A. Scott, Superintendent of Schools, Belmont, Mass.

This article has for its purpose the telling of the story of an experience in maintenance of school buildings in a moderately large town. It is of course recognized that many places have instituted such a plan and that in large cities departments of maintenance, engaging the services of large crews of men, have been in operation for some years. It is felt, however, that such an experiment as that here described has not been presented in any detail in any educational journal. It is also believed that in writing out our experience and presenting some facts concerning the financial savings involved, we may call the attention of other localities to the practical value of the plan and the savings involved.

The town of Belmont is a residential suburb of Boston, growing rapidly; with a population in 1925 of 15,256. There were in the town, in 1926, seven school buildings housing eight school units. The value of the buildings is \$1,846,000.

The amounts spent for maintenance of school buildings for a period of five years were as follows:

1922.....	\$ 2,921.11
1923.....	2,577.91
1924.....	10,216.02
1925.....	8,436.10
1926.....	8,874.85

It will be noted at once that, beginning with the year 1924, more attention began to be paid to maintenance. It may also be explained that in that year several large contracts were placed, due to the need of replacing two roofs, which involved about \$5,000, and also the inauguration of a program of painting the buildings explained

later. During the past two years there have been replacements of toilets and other items involving large sums of money.

The average maintenance cost for the period under discussion was \$2.72 per pupil.

In 1924 the attention of the school committee was called to the need of more care in the maintenance of the buildings, with particular reference to painting. The probable cost of repainting each of the school buildings both within and without once in every five years was figured at \$2,100 per year. The committee thereupon voted to increase the annual budget by that amount and a five-year painting program was undertaken. This work was at first done by contract during the vacation season.

However, it soon became apparent to the school authorities that a more economical expenditure of funds might be assured if a continuous program were carried out throughout the year by one or more men. In addition to the item of painting in the budget there were, of course, many other items of plumbing, carpentry, electrical work, etc., which, it was felt, could be undertaken by a man continuously employed. It seemed that a considerable saving to the town might be made by directly handling the work.

The plan of engaging a general utility man was, therefore, proposed to the school committee in the fall of 1925. The committee was not fully convinced of the advisability of the plan, but voted to experiment with it for six months.

With some difficulty a man was engaged for this trial, and it was most fortunate that the one engaged was a workman with an unusually

# Excessive School-Building Costs

W. R. McCornack, A.I.A., Cleveland, O.

In 1923 the Ohio Association of Architects decided to secure a revision of the building code which was faulty in several respects. The result was the introduction of a bill to create a board of building standards whose function would be to study the code, and make recommendations for changes to the legislature, and at the same time to have the power to declare equivalents, which would overcome one of the chief objections to the old code, that it was inelastic, because its definite provisions covering specific materials and mechanical appliances prevented the use of new inventions in the building industry which would reduce costs. Consequently, it was argued that such a board with power to declare one kind of apparatus or material equivalent to one specified in the code would remove the objection of inelasticity. The bill was passed and so far as the records go the board has functioned in the manner hoped for and all of the board's rulings on equivalents have gone unchallenged.

The board of building standards then called upon the engineers, architects, and other interested organizations, to study the school section of the code particularly, and to recommend changes which would reduce costs. The matter was gone into very thoroughly and the following points were recommended as most necessary to change, as it was found that they formed the chief reasons for high costs.

(a) The requirements of room sizes that unnecessarily increase the size of the building.

(b) Unnecessary and restrictive ventilation regulations.

(c) Excessive number of toilet fixtures.

(d) Smoke screens required at all stairways, separating the stairs and corridors.

The Ohio State Association of Architects in 1924 undertook to forecast the reduction that would follow if the proposed changes in code were adopted. This forecast was borne out by the actual results. A discussion of the above items follows:

(a) *The Code enacted in 1911 required the following sizes of rooms:*

1. Primary grades.	2. Grammar grades.
16 sq. ft. per pupil.	18 sq. ft. per pupil.
200 cu. ft. per pupil.	225 cu. ft. per pupil.
3. High-School grades.	

20 sq. ft. per pupil.  
250 cu. ft. per pupil.

These regulations resulted in the following room sizes:

1. Elementary grades—48 pupils.			
1911 Code.....	24' x 33' 4" x 12'	or 9,000 cubic feet	
1925 Code.....	22' x 28' x 11'	or 6,776 cubic feet (recommended)	
A saving of.....			2,824 cubic feet
or a reduction in room cubage of 30%.			
2. Grammar grades—40 pupils.			
1911 Code.....	24' x 31' 6" x 12'	or 9,000 cubic feet	
1925 Code.....	21' x 29' 6" x 11'	or 6,813 cubic feet (recommended)	
A saving of.....			2,185 cubic feet
or a reduction in room cubage of 24%.			
3. High-School grades—40 pupils.			
1911 Code.....	24' x 34' 9" x 12'	or 10,000 cubic feet	
1925 Code.....	22' 6" x 30' 6" x 11' 3"	or 7,720 cubic feet (recommended)	
A saving of.....			2,280 cubic feet
or a reduction in room cubage of 23%.			

These great reductions in room sizes are not only reflected in a very considerable lowering of initial costs, but also in a reduction in the maintenance and operation budget as the cost of cleaning floors, which usually based on a price per square foot, is very materially lowered, also the cost of cleaning and painting walls is reduced, and there are several thousand cubic feet less air to be heated in each room. The item of maintenance and operation is almost as important as the saving in initial building cost.

Instead of attempting to lay down regulations regarding the number of square feet and cubic

*Editor's Note: This article is substantially a report made to a joint committee of the Ohio legislature by the author.*

feet per pupil, the most important restriction is the width of the aisles to provide for proper and safe exits from the rooms. The new code removed the restrictions on all dimensions except specifying the width of the aisles and the height of the room, which latter restriction is important for natural lighting.

(b) *Ventilating requirements excessive.* In the first place the state code became obsolete with respect to ventilation as it did not permit changes to follow the modernization of the science of ventilation, and the provision that all air should be admitted to the room at a point not less than eight feet above the floor eliminated one system of modern ventilation, that of the unit system, which brings the air into the room through apparatus placed directly below an outside window and discharges it in a vertical direction at a high velocity. This outlet being approximately three feet above the floor could not be used due to the inelastic state law, which eliminated the use of this equipment by specifying eight feet as the height at which air should be admitted. Prior to the change in the state code the ratio which heating and ventilating bore to the total cost of the building was fifteen per cent. After the law was changed and other systems, such as the unit system, were admitted the percentage dropped to twelve, with a resultant saving of three per cent of the total building cost on ventilation alone.

(c) *Excessive number of toilet fixtures.* This matter was given most careful consideration by the architects and school authorities in all of the five cities where institute chapters exist. In the Cleveland schools monitors kept count of the number of pupils using toilet fixtures in the schools. The method was as follows:

Twenty schools were selected and for several days the number of pupils entering the toilets during the day was recorded. By this method it was determined that during the morning recess period occurred the peak use of these rooms. Consequently, further counts were made at that time. It is unnecessary to give all the figures here, but in the case of water closets in the boys' toilets of the various high schools a count showed this result:

Number of boys—7,100. Number of water closets—280. Maximum number used at one time—16. The waste of money here was obvious and very large.

Here are the number of fixtures required by the 1911 code:

Boys—Urinals ..... 1 to every 15  
Boys—Water Closets ..... 1 to every 25  
Girls—Water Closets ..... 1 to every 15

With all the evidence pointing to an excessive number of toilet fixtures the code was changed to the following:

Boys' Urinals:	
First 100 pupils.....	1 to 20
Second 100 pupils.....	1 to 25
Third 100 pupils.....	1 to 30
300 or more.....	1 to 50
Boys' Water Closets:	
First 100 pupils.....	1 to 30
Second 100 pupils.....	1 to 35

Third 100 pupils.....	1 to 50
300 or more.....	1 to 75
Girls' Water Closets:	
First 100 pupils.....	1 to 15
Second 100 pupils.....	1 to 20
Third 100 pupils.....	1 to 25
300 or more.....	1 to 40

It is obvious that for the average school the number of fixtures is reduced by nearly half. The saving proved to be very conservative as the actual saving was even more, and smaller toilet rooms were required with less initial building cost and less maintenance and upkeep cost.

(d) *Smoke Screens.* The smoke screens called for in the old code were fire-resisting partitions with swinging doors, separating the corridors and stairs. Imagine a group of children passing out of a building through such obstructions. They were a menace and their elimination saved money as well as making the exit facilities safer. If a stairway leads to a basement, however, it must be separated from the basement by a fire door and the 1925 code provides for this.

These four factors comprised the chief changes recommended by the architects and in 1925 the state legislature passed a bill enacting these changes into law, with the results noted.

In 1924, prior to the passage of the new code, the Cleveland board of education let contracts for a 31-room elementary school which cost \$585,000, the price per cubic foot being 50 cents. The number of cubic feet contained in the building was 1,170,000.

In 1926, a standard 31-room elementary school was constructed for \$445,000, of the same type of construction as the one erected in 1924, and costing 50 cents per cubic foot. It contains 895,000 cubic feet. The saving was \$145,000, or a reduction of approximately 25 per cent in cost. A large part of this was due to the state code changes and the rest to more scientific planning.

There is no doubt that the state-code changes will save school districts 20 per cent if they follow the code, and there have been many instances where advantage was not taken of these changes. Some publicity should be given to the advantages to be had by studying and applying the new provision in the school-building code.

What is the next step in the code revision? In the first place, the state code is being entirely rewritten to make it more practical and reasonable. It will not be necessary to discuss all of these changes in detail as they will have less effect on cost than the major changes discussed.

(1) There is one major matter, however, which should be considered. Where certain types of ventilation are to be used it is entirely feasible and practical to take advantage of the corridors as ventilating ducts, permitting the air to pass through a vent in the door or wardrobe into the corridor, and then up the stair wells and into exhaust chambers at the roof. In this manner the corridor air is changed and much additional cost saved as much expensive duct work is saved, and wall thicknesses and mechanical apparatus can be reduced and additional radiation in the corridors eliminated. In some recent contracts let in an adjacent state, by utilizing such a method, the cost of ventilation was reduced from twelve per cent to nine per cent of the total building cost, or a total reduction from the old code basis of fifteen to nine per cent, a saving of six per cent on the total cost of the building due to changes in the ventilating code.

All these changes, moreover, have an important bearing on the cost of maintenance and upkeep. Less building to clean and heat and less apparatus to repair is a very important item and this point cannot be stressed too often.

(2) As an example of carelessness in watching maintenance and operating costs, a specific case is cited. In a discussion as to the cost of operating different kinds of heating plants, the point was made that there was more difference due to careless operation than between the operating costs of two different systems.

In substantiation of this claim the following figures are given. "A," "B," and "C" are three buildings exactly alike as they were constructed from the same set of plans.

#### HEATING

A exceeded C by 44%  
A exceeded B by 27%  
B exceeded C by 17%

#### LIGHTING

A exceeded C by 45%  
A exceeded B by 23%  
B exceeded C by 21%

#### POWER

C exceeded B by 150%  
C exceeded A by 60%  
A exceeded B by 56%

These figures covered a period of five years and show clearly that the training of operating engineers is not what it should be. There should be a school for custodians and janitors and it should be in connection with a state university or some other convenient technical school. In addition, there appears to be much laxity upon the part of school authorities in doing what any successful manufacturer or public-service corporation must do, to assemble facts with regard to costs and study these in chart form.

Here is an example where operating costs are not properly supervised, with a resultant loss to the taxpayer.

It is unnecessary to go into a long discussion of the figures, except to point out the wide discrepancy in the power costs which indicate plainly that the expensive ventilating plant in "B" building—called for by the state code—was not operated to any considerable extent. This bears out the figures sent out by Columbia University, showing that about fifty per cent of the schools having expensive ventilation plants do not operate them at all. This percentage was arrived at through voluntary answers by the school authorities to which questionnaires had been sent. No doubt many schools which supposed they were operating the ventilating apparatus would be much surprised to find that they were mistaken.

(3) One other item of some importance in saving cubage in a building has to do with the requirement which specifies that no desk shall be nearer a radiator or other projection on the window wall than 2 ft. 6 in. Since the children leave the desks by the aisle away from the window wall the requirements should read that no desk should be nearer the radiator or other projection than the width of the aisles between desks. This will permit rooms to be narrowed 1 ft. and the ceiling heights reduced 6 in., which means considerable cubage in a two- or three-story building.

It is the belief of the architects that a continuous study of the code is desirable and while most of the changes having a bearing on the reduction of costs, with the exception of the corridor ventilation, seem to have been made, yet no doubt careful consideration will reveal other ways of saving.

It is true that the code sections for other types of buildings have never been enacted into law and these sections should be carefully watched to prevent any costly provisions being incorporated.

#### (4) The Importance in Economy and Intelligent Planning

There has been little study given to the best type of plan and the most economical method of arranging the various parts of the building.

In the construction of office buildings, hotels, and other commercial structures, particular attention is given to the economy of the plans and to the actual percentage of usable space in the building. There have been instances

part of the proposed plan and when completed it would entail a further loss in addition to being contrary to the code in several respects.

4. *The new building.* The following analysis of several plans shows where the loss occurred.

"R" is the building in question and "R1" is a plan made to conform to the requirements of "R"; "A" and "L" are similar buildings in other cities. The tables of analysis follow:

TABLE "A"

	R	R1	A	L
Cubic contents . . . . .	1,150,000	\$50,000	975,000	1,185,000
Cost at 35¢ per cubic foot . . . . .	\$402,500	\$297,500	\$341,250	\$414,750
Pupil capacity . . . . .	780	840	930	1,000
Number of educational rooms . . . . .	26	28	31	36
Classroom area in square feet . . . . .	16,043	18,672	19,329	18,688
Auditorium, gymnasium, cafeteria, study hall—area in square feet . . . . .	16,794	18,000	16,581	26,433
Total educational area in square feet . . . . .	32,837	36,672	35,910	45,121
Gross area in square feet . . . . .	71,943	56,762	59,902	73,525
Ratio usable area to gross area . . . . .	45.6%	63%	59.9%	61.4%
Cost per pupil . . . . .	\$515	\$355	\$368	\$415
Cost per square foot of classroom area . . . . .	\$25.08	\$15.94	\$17.65	\$22.19
Cost per square foot of usable area . . . . .	\$12.25	\$8.10	\$10.20	\$10.38
Number of cubic feet per pupil . . . . .	1,474	1,012	1,050	1,185

when careless planning in commercial structures has resulted in failure, and in schools where there is no opportunity to show financial returns on an investment there has been no serious check upon mistakes and innumerable serious blunders have occurred.

Some examples of the result of careless planning will be given to illustrate the point, as it is a matter that has never made much of an impression on those responsible for the spending of public funds.

Let us take an example of a school situation in Ohio. A taxing district asked for a bond issue of \$800,000 to construct new buildings. Three of the operations were additions to old buildings and one a new building.

The expenditures were as follows:

1. Annex . . . . .	\$ 57,000
2. Annex . . . . .	145,000
3. Annex . . . . .	106,000
4. New Building . . . . .	407,000

\$715,000

This left a balance of only \$85,000 to take care of architect's fees, supervision, equipment, and landscaping, which amount was inadequate. If the amounts spent were the minimum necessary to provide proper school facilities there could be no complaint, but such was not the case.

The following analysis of the plans indicates where the waste occurred:

1. *Annex*—Approximately 5,000 cubic feet of space provided which was unnecessary, or \$2,500 lost. The contract price resulted in a price of fifty cents per cubic foot.

2. Annex. Plan as per contract—Plan A	8
Classrooms . . . . .	8
Kindergarten . . . . .	1
Cafeteria . . . . .	1
Locker room . . . . .	1
Toilets . . . . .	3
Teachers' dressingroom . . . . .	0
Teachers' restroom . . . . .	1
Clinic . . . . .	1
Court . . . . .	28' 0" wide

Cubic Contents 296,826 cu. ft. @ 50¢ costs \$148,413.

No future extension possible.	Logical Plan—Plan B
Classrooms . . . . .	10
Kindergarten . . . . .	1
Cafeteria . . . . .	1
Locker room . . . . .	1
Toilets . . . . .	3
Teachers' dressingroom . . . . .	0
Teachers' restroom . . . . .	1
Clinic . . . . .	1
Court . . . . .	40' 0" wide

Plans for future extension.

Cubic Contents 237,000 cu. ft. @ 50¢ costs \$118,500.

Saving in Plan "B" is \$29,913 plus two additional rooms (\$19,600) or \$49,513.

Allotting the kindergarten the value of two rooms on account of its size, and dividing the \$118,500 cost by twelve we have a cost of \$9,800 per room. Therefore, the two additional rooms in Plan B are worth \$19,600, which, added to the saving in Plan B over Plan A of \$29,913, shows an advantage for Plan B of \$49,513, or a loss of nearly \$50,000 on a small building on account of careless planning.

3. *Annex.* The total cubage in this building is approximately 250,000. Waste cubage amounted to 20,000 cubic feet. At forty cents per cubic foot, which was the cubic-foot price of the building, the resulting loss was \$8,000. In addition, the first construction was only a

In the fourth item of the building program in Table A the difference in cubes between "R," the building constructed, and "R1" was 300,000 cubic feet. This cubage at 35 cents, which was the cube cost of the building, resulted in a loss of \$105,000. The two additional rooms are worth \$8,000 apiece, or \$16,000 additional loss in Plan "R," bringing the total loss to \$121,000.

Summing up the total losses, we have the following:

1. Annex . . . . .	\$ 2,500.00
2. Annex . . . . .	50,000.00
3. Annex . . . . .	8,000.00
4. New Building . . . . .	121,000.00

\$181,500

A total loss of \$181,500 on a building program of \$800,000, or over 22 per cent. Enough money was wasted through careless planning which, if more economical methods had been followed, would have made it unnecessary to ask for more money to finish these buildings.

In reviewing the causes of high building costs there may be many points of attack, but these three are of paramount importance:

The Ohio state building code.

More scientific planning.

More economical use of buildings.

With all these elements it will be possible to bring the actual costs of building back to approximately the prewar level. In fact, on examination of many elementary-school plans, comparing them with what can be done by careful planning, it is apparent that the number of cubic feet in the building can almost be reduced 50 per cent.

#### It is, therefore, recommended:

First: That the state building code be kept simple and elastic, and revised often enough to meet the savings due to changes and inventions in the building industry. The code should be a statement of basic principles. Means should be found to apply research methods to this question just as industrial organizations apply the principle of research to their work. The state university should be able to be of great assistance in this respect, and some arrangement should be made to bring this about. The board of building standards should have a permanent technical secretary of such ability and training as to enable him to take the initiative with respect to research and to be employed constantly on suggested code revisions.

Second: Information should be circulated regarding the proper methods of planning and analyzing plans and there should be some agency to make this information available to the building public.

Extreme care should be taken to make it difficult to force upon an uninformed public the dangerous principle of the standardization of buildings.

In 1924, when the board of education of Cleveland was considering making the plans of some of the recently constructed buildings

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# Legal Status of High-School Fraternities

William E. Jones, New Castle, Ind.

Legal efforts to eliminate high-school fraternities have been made in two ways. First, several states, at least nineteen,<sup>1</sup> have passed statutes providing for elimination. In many of the other states, where there is no statute, local school boards have rules forbidding student membership in fraternities. The constitutionality of such statutes and the legal right of school boards to pass such rules both have been challenged. The courts have uniformly upheld the constitutionality of the statutes. With one exception they have also upheld the legality of school-board rules, in the absence of statutes.

It seems that all fraternity cases brought before the courts involve one or more of the following questions:

1. The power of educational institutions supported by the state to exclude pupils who are members of a fraternity or refuse to pledge themselves not to become members.

2. The power of educational institutions supported by the state to debar members of fraternities from participating in certain privileges.

3. The power of an incorporated college or university privately endowed to forbid students to join fraternities.

4. The constitutionality of statutes forbidding the students' membership in fraternities or secret societies.

Stated in the above manner both the college and public-school fraternity would be involved.

In one of the early cases<sup>2</sup> where a plaintiff questioned the right of educational institutions supported by the state to exclude people who are members of a fraternity or refuse to pledge themselves not to become a member, the plaintiff was a state-university student contesting the right of the university to exclude him. In this case the power of the institution to exclude members of a secret fraternity was denied. However, the court held that the institution had the right to forbid any student from attending fraternity meetings or taking any active part in his order while registered as a student.

Since that time there has developed a nationwide policy of discriminating between the high-school fraternity and the college fraternity. The state in which the above case came up has since passed a statute forbidding high-school fraternities. With one or two exceptions anti-fraternity legislation has applied only to the elementary and high schools. The State of Mississippi has prohibited secret societies in all state educational institutions.<sup>3</sup> Fraternity members contested the law in the state supreme court where the statute was upheld.<sup>4</sup> The law was also attacked as violating the 14th Amendment of the United States Constitution.<sup>5</sup> The United States Supreme Court, however, upheld the constitutionality of the law. Due to the fact that the Mississippi law is probably the most stringent of any anti-fraternity law now in force, the power of legislatures to pass anti-fraternity laws is settled so far as the federal constitution is concerned.

With the exception of Mississippi and South Carolina, anti-fraternity laws apply only to high schools. In 1915, South Carolina had a statute stating that secret Greek-letter fraternities are forbidden in any institution of higher learning supported in whole or part by the state.<sup>6</sup> Some private colleges forbid student fraternities and

the Supreme Court of Illinois has ruled the colleges have this power.<sup>7</sup> In general, however, the college fraternity has been permitted to assume a supplementary position in higher education. Since the Stallard v. White case, Indiana has legislated against the high-school society but has permitted both of her state universities to become fraternity centers. The legislatures have given the college fraternity a legal status by stating, in some cases, that the anti-fraternity law shall not apply to state universities and normal schools. These laws have been attacked on the ground that they are class legislation.<sup>8</sup> However, the courts have held that such statutes did not constitute class legislation. The differences between the ages of the classes and the need and purposes of the high-school fraternities and the college fraternities are sufficient for legal classification. The younger and immature pupils form a class. In all cases the state courts have upheld the constitutionality of the statutes forbidding public-school fraternities.<sup>9</sup>

With one exception<sup>10</sup> the courts have held that in the absence of a statute, local school boards have a legal right to pass rules restricting high-school fraternities.

There appears some difference between the penalties provided for by the statutes and the board rules. Most of the statutes provide for suspension or expulsion. Some of the rules in absence of a statute provide for expulsion, while others provide that the fraternity members shall not represent the school in any way. That is, fraternity members cannot be class officers, cadet officers, officers of a school paper, members of debating team or athletic team.

Most of the cases that have come up involve the later type of rule. The Supreme Court of Washington gave a decision that: "A board of school directors has, under a statute authorizing it to adopt rules and regulations for the well-being of the school, authority to debar members of high-school fraternities organized against its will, although with the consent of parents of the pupils, and meeting out of school hours, from participating in certain privileges attendant on membership in the school, such as connection with athletic teams, musical, literary, and military societies and to deprive them of customary graduation honors."<sup>11</sup>

No attempt was made here to deprive the fraternity members the privilege of attending classes and obtaining the same class instruction as given other students.

In Illinois, before the enactment of an anti-fraternity statute, the fraternity members lost a series of cases before they would be convinced of the right of school boards to discipline them.

In the first of this series, a rule of the Chicago board of education was challenged.<sup>12</sup> The state supreme court gave an opinion which is practically the same as given in the Washington case. The court first stated that it would not interfere with reasonable rules adopted by the board of education. The court then gave the opinion that: "A rule adopted by board of education condemning Greek-letter societies in the high school, requiring teachers to refuse to give public recognition to such societies, allow meetings to be held in the school building, permit the name of the school to be used by such societies or allow members thereof to represent

the school in any literary or athletic contest or in any public capacity, is not unreasonable nor an unlawful discrimination. Rule denied no other privileges. Such students could attend school, were not denied membership in associations of pupils, but they were not allowed to represent schools in public contests and capacities."

Two months later the same rule was challenged in another case<sup>13</sup> and the court held that the question raised was identical with the Wilson v. Board of Education case and stated that the previous decision would control.

In a later case in Illinois, a student was actually dismissed for fraternity membership. The father of the student went to court in an effort to have his son reinstated. No doubt his attorney had the two previous cases in mind, as the right of the board to expel was not questioned, but a claim was made that the boy was not a member of the fraternity and that he had been summarily dismissed, without an opportunity to show that he was not a member of the fraternity. The court held that the board had the right to determine this and that its judgment on this point was final. Said the court: "The power to determine what constitutes disobedience or misconduct lies with the board of education, and under no circumstances except where fraud, corruption, oppression, or gross injustice is palpably shown, is a court of law authorized to review the decision of the board of education, and to substitute its judgment for that of the board."

The one dissenting opinion on the power of school boards to pass anti-fraternity rules was given by the Supreme Court of Missouri.<sup>14</sup> In its decision the court denied the right of the St. Louis school board to prohibit students belonging to fraternities from representing the school in any capacity. The rule denied to pupils who were members of secret societies no privileges allowed to pupils not members, except the privilege of representing the schools in literary or athletic contests or in any other public capacity. The opinion of the court seemed to consist of mainly a justification of their disagreeing with other cases on the same subject. This justification consisted of criticizing the decision of the other courts. An Iowa case was cited as "an extreme illustration of the upholding of a disciplinary rule, the violation of which involves no moral turpitude."<sup>15</sup> The court charged that in the opinion of the Waylaw v. Huges<sup>16</sup> and Wilson v. Board of Education,<sup>17</sup> the reasoning was faulty.

Two of the justices dissented and a dissenting opinion was given. The writer believes that this dissenting opinion is the clearest and best organized of all the opinions given on the subject of the legal right of school boards to regulate high-school societies.

The American Law Reports<sup>18</sup> in discussing the ruling of the Supreme Court of Missouri, points out the inconsistency of the opinion. The beginning of the annotation in the A. L. R. states concisely the status of board rules.

"The weight of authority is to the effect that rules by a board of education or other school authority forbidding membership of pupils in so-called Greek-letter fraternities, and providing for punishment for violation by expulsion of the pupils or rendering them ineligible to

<sup>1</sup>California, Colorado, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Jersey, Ohio, Oklahoma, Oregon, Vermont, Washington.

<sup>2</sup>Stallard v. White, 82 Ind. 278, 42 Am. Rep. 496.

<sup>3</sup>Board of trustees v. Waugh, 105 Miss. 623, 62 So. 827.

<sup>4</sup>Waugh v. Mississippi University, 237 U. S. 589.

<sup>5</sup>An examination of the codes of South Carolina for 1922 shows this law was still in force.

<sup>6</sup>People ex rel. Pratt v. Wheaton College (1866), 40 Ill. 186.

<sup>7</sup>Bradford v. Board of Education, 18 Cal. App. 19, 121 Pac. 929. Lee v. Hoffman (1918), 182 Iowa 1216, 166 N.W. 505, I.R.A. 1918C 933. Sutton v. Board of Education (1923), 306 Ill. 507, 138 N.E. 131.

<sup>8</sup>Wright v. Board of Education, 246 S.W. 43.

<sup>9</sup>Wayland v. Hughes (1906), 43 Wash. 441, 86 Pac. 642.

<sup>10</sup>Wilson v. Board of Education (1908), 233 Ill. 464.

<sup>11</sup>Favorite v. Board of Education, 235 Ill. 315. <sup>12</sup>Wright v. Board of Education, 246 S.W. 43; 27 A.L.R. 1074.

<sup>13</sup>Kinzer v. Toms, 129 Iowa 441.

<sup>14</sup>See page 25.

<sup>15</sup>See page 26.

<sup>16</sup>27 A.L.R. 1074.

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## Principal's Part in Supervising Classroom Instruction

Prin. C. W. Reynolds, Norfolk, Va.

"As the principal, so is the school," says the *New York Survey*, written by Chancellor Elliott. The principal is near enough to the actual teaching to control detailed procedure, to adapt it to the special needs of his school, and to keep the work on a high plane of efficiency. Unlike the teachers who have to do only with special grades or subjects, he is responsible for a large general program of education covering many grades and subjects. The principal is, therefore, in a position to wield a tremendous influence in the conduct of the school system. If he is active and efficient, the work will be of a high character; if he is passive, inefficient, and unprogressive, then the work will fall into stagnation and confusion.

The principal is responsible directly to the school board for the character of the school-work which has been placed in his charge; he is the daily inspector and supervisor of the work done in his schools, and he has a source of authority in the school board which will effectively support him in his management.

He advises teachers as to methods, evaluates the work of teachers and pupils, promotes morale among teachers and throughout the school organization. No other supervisor touches classroom work so intimately. Whether scholarship among pupils or efficiency among teachers is to be maintained rests with the principal. The success or failure of the schoolwork is mainly his success or failure; or at least it is so viewed by the school board or other school authorities.

In securing the services of the best qualified teachers for his schools, the principal must make clear and convincing to the people and the school board of his community the true worth of the teacher to the school and to the community. Buildings, equipment, organization, and courses of study are important and effective only to the degree that are vitalized by the quickening power of the teacher.

Now, what may the principal do to help his teachers in their classroom work? First, he must be a thorough and unremitting student of methods. To this end, he must know psychology and pedagogy. He must understand human nature and human needs. He must be

able to get large returns from educational reading, educational meetings, and school visitation. He must sense the purpose of his own community and the country at large in their striving and endeavors. Then he must be able to translate all this into a method of procedure applicable to his own schools and the individual teacher.

In some measure this may be done by formulating wise courses of instructors and general rules of procedure. But specific thought must be given to many individual problems which apparently are of minor importance. His study of these problems must issue in instructions to his teachers, that are true suggestions in spirit. No principal has a right to issue many mandatory instructions to the individual teacher who has any measure of success.

An important step in helping teachers is to place them where their success will be most probable. This is especially true of beginners, and often the principal can save a teacher who has taught a number of years by changing her to a grade where discipline is easier or the work is better adapted to her individuality.

Before a principal can help his teachers he must diagnose. He must observe methods of teaching to see whether they conform to certain subjective standards. For example, the principal may judge classroom work largely by four standards, namely:

1. Motive on the part of pupils.
2. Consideration of value by pupils.
3. Attention to organization by pupils.
4. Initiative by pupils.

A principal who tests instruction by these or any other standards should not remain satisfied until he has explained them to his teachers.

A principal should use not only subjective standards in his diagnosis of classroom instruction, but objective measurements, more commonly called standard tests. The nature and value of such tests has been set forth so many times that it is needless to more than mention them as a means of analyzing the results of teaching.

Having made a study of classroom instruction through observation and by means of tests, the

principal should then begin to supervise. Supervision is more than inspection, more than diagnosis. If the teachers are found to be using poor methods, if the results fall below standard, a remedy must be prescribed; there must be constructive, not negative criticism.

Very often, the least said about the facts of a teacher the better. To mention a fault is only to make a teacher self-conscious, and to make her think first of how not to do, instead of how to do. That supervision is not effective which observes only the faults, sets them down in a notebook, learns them by rote, and then casts them in the teacher's face. A fault is best eradicated by substitution, by furnishing a good method for a poor one. To lead teachers to do this is the difficult part, yet the absolutely necessary part of all supervision.

Criticism should be offered in terms of a discussion rather than a lecture. By a series of carefully formulated questions a principal may be able to draw out of a teacher the most significant problem of her difficulty or weakness. By the principal stating that he is interested in her own criticism of her work or recitation, the criticism becomes mutual and its force becomes modified.

Often the suggestion of some helpful book on teaching will remove the weakness. A visit to the room of some teacher who is particularly strong in respect to the point wherein the visiting teacher is weak is often beneficial. The principal should occasionally teach the class in the presence of the weak teacher.

The principal must be the inspiration of his teachers in their hopes, aims, and ideals, just as the teacher holds this relation to her school. He must be the interpreter of the visions and consequent ends of all educational movements and efforts. He must sense what is ephemeral and what has true and lasting worth. He is the spiritual as well as the scholastic guide of his system. And then he must somehow get his leadership to function concretely in the reactions of his teachers and his school. His vision must be translated into effective action. His ideals must issue into concrete realization in the schoolroom, in his teachers, and in the pupils.

Now, how can this be brought about? In the first place, it is the principal's duty to make the teacher a happy individual glorying in her work. Contentment in one's work is an essential condition to success, especially when that

(Concluded on Page 146)



OFFICERS AND MEMBERS OF THE NATIONAL ASSOCIATION OF PUBLIC

# School Business Officials Meet in Philadelphia

Sixteenth Annual Convention of the N. A. P. S. B. O. — May 16-20

Superintendents of schools and educators generally feel that the great unsolved problems of city-school systems are entirely, or almost so, in the making of educational policies, in the revision of the curriculum, and in the constant readjustment of the school system to social and civic changes. If, however, any number of educators, particularly superintendents of schools and heads of university departments of school administration were present at the Sixteenth Annual Convention of the National Association of Public School Business Officials, it is certain that they would have been disabused of this idea, in fact, the variety, the multitude, and the intricacy of school business administration problems would have appalled most of them.

Any one who has followed the meetings of the School Business Officials knows that the variety of topics for discussion and the new problems which are presented each year to the group indicate that every phase of the business administration of schools is constantly growing and changing and is in a fluid state, so that only constant study and re-evaluation, continuous search for new ideas, frequent exchange of experience, and periodic revision and restatement of principles and standards makes it possible for the executive to keep abreast of the best practice and to render efficient service.

The National Association of Public School Business Officials has in the sixteen years of its existence become as solid and permanent an institution as any of the great professional organizations of educators. The group is extremely serious concerning its problems and the service which is expected of its membership. The three daily sessions of the conventions are attended with almost religious regularity.

To briefly summarize the meeting in Philadelphia, it may be said that the attendance was slightly larger than any previous meeting; there were remarkably few disappointments in the appearance of speakers; all of the papers represented a rather careful preparation and a scientific attitude toward problems; at least two addresses, those of Mr. Hans Schmidt of Wisconsin and Dr. George D. Strayer of New York, will be remembered for their forcefulness and their keen analysis of two extremely difficult types of problems; the business of the convention was handled smoothly and quietly by President Wynkoop, Secretary Mount, and Treasurer Huston; Mr. Dick was a gracious host, and his associates took care of every detail that might contribute to the comfort and the pleasure of the visitors. The meeting was marked by at least one progressive step in the Association's policies: The Association proposes through a special research committee to make a serious study of definite problems of business administration of schools, and to continue actively during the year the work of the Association, which now slumbers peacefully between conventions.

Mention has been made in these annual reports of the Association's conventions, that the school

business officials are extremely practical, hard-headed fellows, who are more readily convinced by successful experience and concrete facts than by any amount of theory. Inspirational talks are almost unknown and controversy is limited almost entirely by variations in experience and the generalizations which may be deduced from experience. And it is most interesting to note that secretaries, business managers, and other business executives of schools fight shy of commercial influences far more carefully than their professional associates, the superintendents. There is at the business officials' conventions an almost complete absence of entertainment on the part of manufacturers' representatives.

## The Program

The serious business of the convention opened on Tuesday morning with addresses of welcome by the Honorable William Rowen, president of the board of education, and the city's smiling chief executive, Mayor Freeland Kendrick. Colonel Henry B. Rose of Providence, R. I., in responding to the addresses, pointed out that while the Association does not consider educational problems as such, it is very much concerned with them in that it takes up those details of physical and fiscal management, of building construction and maintenance, and of budgeting and accounting which are an essential part of every school administration. The annual address of the president was then read by Mr. John B. Wynkoop of Bridgeport, Connecticut. Mr. Wynkoop said in part:

We will discuss here every phase of the business management of public schools. We will listen, debate questions, and criticize. All healthy criticism is productive of good and tends to further efficiency. The evening round tables, like country-school-board meetings, will afford opportunity to push and pull, to give and take. Behind all that we say or do, we have but one objective, viz., the welfare of the child.

Let us stop for one moment in our onward march to consider our responsibilities as officials in our various capacities. According to Frank Bruce of the SCHOOL BOARD JOURNAL, the American people have floated in the last three years an average of \$330,000,000 each year in school bonds. There were \$40,000,000 in bonds issued in the year 1915, and \$400,000,000 in the year 1923. We have in the last six years, let contracts averaging \$347,108,166 per year, and representing an average of 47,139,417 square feet per year in additional school housing. We in our various capacities are responsible for a plant housing 21,000,000 children in the elementary schools and 3,500,000 in high schools.

As a means of widening the influence and developing the service of the organization, Mr. Wynkoop recommended that definite work be undertaken for the improvement of efficiency in school administration. He urged:

The time has arrived when very definite work is necessary to bring about a new appreciation and a new respect for our work, on the part of our local school boards and of the thinking people of every community interested in the efficiency of schools. We are here to stay—no other organization is going to push us out of our place in the sun.

I, therefore, recommend that the Committee on Resolutions and the Committee on Rules and By-Laws of this convention meet in joint session, and bring in a resolution recommending at an early session, that

the president be authorized to appoint a Committee on Research, composed of five members, and I further recommend that a sufficient appropriation be authorized to allow such a Committee to organize and function.

As a further means of furthering the interests of the Association and of bringing its message to school executives in the west, Mr. Wynkoop recommended that future conventions be held in the west and in the central west.

The organization that does not grow, does not even stand still. It slips backward. Our particular organization has a special condition with which to cope. Our members are more or less appointed to their various positions, directly or indirectly through political preference. It often happens that due to changes in administration, we lose some of our strongest members. They must take up other lines of work. With this condition in mind, we must look to the future. We must keep our ranks filled. We must build up a powerful organization which will reflect itself in the various communities and which will be felt when changes are contemplated.

To do this each and every one of us must be efficient. Since every chain is only as strong as its weakest link. This means an ever-growing efficiency since the American school plant is growing larger day by day. Its perfect operation makes the daily task a heavier one. We must sail our boat well, or get out of it.

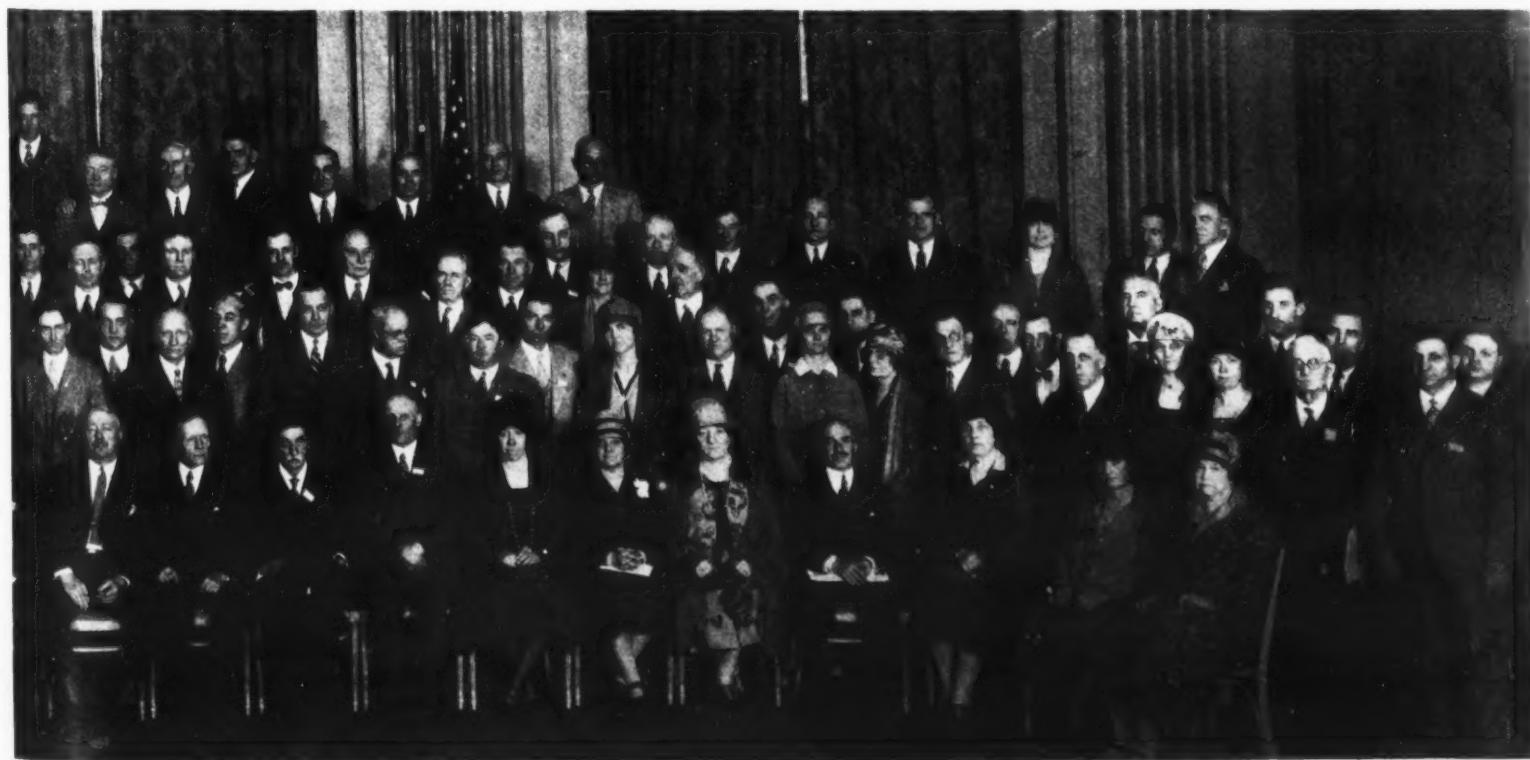
America's greatest investment is its public-school system, both from a financial standpoint as well as from the standpoint of Americanization. No other investment offers a better return. As business officials, the successful operation of this huge plant is our responsibility; to do it in the best manner possible is our mission; to satisfy the greatest number possible in our respective communities is our obligation. This done, we have made our contribution to education.

The session closed with the appointment of committees and the annual reports of the secretary and of the treasurer. It was made clear that the organization has a comfortable balance in the bank and that its membership has had moderate growth during the year.

## The Afternoon Meeting

Mr. George King, clerk of the board of education at Salt Lake City, Utah, discussed the duties of the clerk of a board of education, bringing out in an extremely modest way the splendid work which he has been doing in his city. He spoke of the vast increase in the service of the schools and the necessary increase in the school funds and school costs. He showed that the secretary's duties have grown enormously through the expansion of the entire school system as well as through the growth of the city, and that it has been necessary to constantly readjust the management of the schools to changing conditions. He showed how the application of the best principles of business management had made more efficient the purchase and distribution of supplies, had simplified the accounting, etc.

Mr. Joseph Beals of Worcester, Massachusetts, in discussing Mr. King's paper, described the local situation in his community and pointed out the need of reducing overhead in the school business. He showed that the work of the secretary is sometimes made more difficult by a straightforward policy in dealing with citizens and officials, in the long run it is made vastly easier by courtesy, firmness, and absolute fairness.



SCHOOL BUSINESS OFFICIALS, PHILADELPHIA, MAY 20, 1927.

Miss Rita Knowles, secretary of the board of education at Moline, Illinois, discussed the service of women members of boards of education. Her paper, which appears on page 44 of the JOURNAL, pointed out that woman has a distinct place in board-of-education labors which men cannot fill, and that, if she will recognize her limitations as well as her opportunities, she will do much to round out the entire service which a board of education should render under the law.

In the discussion which followed, Miss Frances Pearce of Westfield, N. J., showed that women members are most useful in promoting child welfare and housekeeping activities, and Miss Alice Coe of Englewood, N. J., gave her experiences with women members, who, she said, had been most helpful in solving teacher problems for the superintendent and the school board.

Mr. D. D. Hammelbaugh, who closed the meeting with a report on the revision of the official Handbook of Accounting, showed that the business officials are marking time in perfecting the handbook because the Department of Superintendence of the N. E. A. has been slow in revising its section devoted to child accounting.

The final paper of the afternoon was read by Honorable C. E. C. Dyson, architect of the board of education at Toronto, Ontario. Mr. Dyson divided the work of the school architect into six major classifications, each of which involves a group of problems that should be discussed and solved by the Association. If these problems are properly attacked, standards may be set up which will guide local architects and boards of education in considering their local building projects. The codes for planning and constructing school buildings are anything but ideal, in Mr. Dyson's opinion, and the specific help of the Association is necessary for improving them and keeping them abreast with new findings and improved practice. It would be well if the Association program could be planned for two or three years in advance, taking up each year a specific set of problems and laying down definite recommendations, resulting from these deliberations.

Mr. Dyson outlined his own experiences in testing his plans for efficiency and economy by means of the N. E. A. "Candle of Efficiency." He suggested that straight oblong buildings are more economical than the hollow-square, U, E, or L types of plans, except where extremely large structures are in view. He suggested that there is a need of restudying the size of classrooms, due to improvements in ventilation, changes in instructional methods, and cost of construction. He spoke of his own successful experience in determining the width of corridors, of adopting various types of materials, of planning toilets, of surfacing yards, etc. He showed that in all of his work, there is a constant effort to study costs from the standpoint of ultimate economy, based on the investment, the annual maintenance, and length of life. He declared, however, that all of the problems of building schoolhouses are constantly changing and shifting, and that the Association could render invaluable service by serving as a medium of exchange of experiences and standards.

Secretary J. B. Ludlam, of the Lincoln, Nebraska, board of education, in leading the discussion, suggested that there should be standardization of all possible elements in school buildings. Dr. George W. Gerwig, Pittsburgh, showed that such standardization, while it is highly desirable, must be constantly reviewed and adapted to new conditions which are constantly developing both in the educational service of the school buildings and in the improvement in materials, construction methods, etc.

The Association on Tuesday evening met in three groups for round-table discussions of problems of special interest: Mr. Fred B. Chambers, auditor of the New York board of education, led in a discussion of problems of administering school revenues and replacing old school buildings. The mechanical problems of school-building construction and maintenance in smaller cities were discussed by a round table headed by Mr. A. B. Cousins, supervising mechanic of the board of education at Richmond, Virginia. A most interesting session on the secretarial and accounting problems of smaller cities was headed by Mr. W. N. Decker, secretary of the board of education at Altoona, Pennsylvania.

#### The Wednesday Morning Session

Dr. George D. Strayer of Columbia University, New York City, opened the session of Wednesday morning with one of his typically incisive discussions of "The Steps in the Development of a School-Building Program." He argued that there should be in every city the best opportunity for education for all children, and that school building should be made to serve as the physical means of the opportunities. Large units are invariably better than small units, because they give an opportunity for variations in the program of instruction to meet

that the best we can do in this generation to insure the continued acceptance of principles which we hold to be correct, is to live up to them and to pass them on uninjured to the next generation.

Quite a contrast to Mr. Beeber's matter-of-fact discussion of conditions and principles of government was the stirring address of the Hon. Hampton L. Carson, formerly attorney-general of Pennsylvania and now president of the State Historical Society. Mr. Carson traced our present institutions from the granting of the charter to William Penn, on through the historic events of the revolutionary war, the writing of the constitution, the civil war, and the world war, down to the present time. He argued eloquently that so long as we truly appreciate the significance of the historic events that occurred in and about Philadelphia, there can be no danger to our government and our institutions.

#### The Thursday Session

The convention settled down again to serious business at nine o'clock on Thursday morning. The opening speaker was Mr. James J. Ball, who described in detail the problems of janitor service in the city of Denver. He made clear that the important job of school-building maintenance can only be carried out through a corps of trained, loyal, competent janitors and custodians, who are supervised with understanding and sympathy, but who are held strictly to the efficient performance of their work. Mr. Ball described in detail the methods employed in Denver for instructing janitors and for keeping up their morale through conferences and meetings held by an organization known as the Association of Denver Public-School Custodians. This organization looks after sick members, and provides a series of meetings and entertainments that are instructive, recreational, and generally helpful. In concluding his address, Mr. Ball drew the following deductions which he considered of value to school janitors in charge of janitor service:

In training men be sure that the instructors know their business. For instance, if a custodian is asking for information about a paint job, send a painter foreman or some experienced painter to help him and not an inspector or supervisor who probably knows less about the matter than the one making the request. We have found that some men hesitate to attempt small repair jobs for fear of being unethical toward the regular men engaged in that trade. But when a regular trade workman shows him how it is done, he knows that he is expected to perform such tasks and that he is not unethical when he does so.

Promote men on their merits and not on friendship or lodge affiliations. Give each man a square deal and play no favorites. See that foremen or supervisors treat the men fairly. There must be discipline and men in authority must make decisions and these decisions must be backed up whether they are right or wrong, but there is a way to handle a situation should such men in authority make unwise or unfair decisions.

Make as few rules as possible to run the department. It is always necessary to have rules and regulations, but it should be understood that if we make a rule which might appear wrong or unfair to others that any person or persons in the organization have the right to appeal to the superintendent or the board of education without being penalized for so doing.

Meet the men in a good-natured spirit and cultivate the habit of calling them by name, particularly by their Christian names. It is not necessary to become too familiar in doing this—just be human. Men do not respond well when in the presence of a grinch. If you are out of sorts and sore at the world, stay in your office or go home, but for the sake of the service, do not go near the schools as the custodian and his helpers have enough troubles of their own.

Remember, in handling men there is no substitute for common sense. Back up your men when they are unjustly criticized or assailed. In most cases you will find that the custodian is right and the critic is of the petty, selfish type.

Make it possible for the men to associate together and with you. Let them learn to know each other personally, to know you, and you to know them. Provide the opportunity for them to get together for discussions, games, stunts, picnics, banquets, and the like. Nothing will develop their personal qualities more than these pleasant and happy associations where they can throw off the cares of their jobs and thoroughly enjoy the associations of their fellows.

In concluding these rambling remarks, let me quote Frederick Von Amberg in his magazine, the *Silent Partner*: "Sixty summers and equally as many winters have taught me that people meet me as I treat them; taught me that when I am looking for trouble I always find it; that the Golden Rule is the sum total of all wisdom for getting on with the world."

Mr. H. H. Brackett, auditor of the Chicago board of education, read a scholarly paper on the development of the segregated budget. He described in detail the plan which has been evolved in Chicago and which has resulted in a scientific plan for budgeting and accounting. He was followed by Mr. A. S. Neibeker, Jr., architect of the Los Angeles board of education, who read a paper prepared by Mr. William E. Record, business manager of the Los Angeles board of education, on "The Los Angeles School Building Program." Readers of the SCHOOL BOARD JOURNAL will remember a description of this program in the February, 1927, issue, by O. H. Barnhill.

#### The Afternoon Session

At the afternoon session, Mr. Hans W. Schmidt, inspector of buildings for the Wisconsin State Department of Public Instruction, held his audience

(Continued on Page 117)



MR. H. L. MILLS,  
Business Manager of the Board of Education,  
Houston, Texas,  
President-Elect of the N. A. P. S. B. O.

the needs of individual children; they permit of homogeneous grouping according to ability and progress; they simplify and economize costs of administration and supervision; and they permit of the introduction of many features in schoolwork which are impossible in small buildings, because of excessive costs. The school program in many of our cities is limited by the presence of old structures which do not permit of adaptation to present curricular programs in the grades, in the junior high schools, or in the senior high schools. The problem of older cities is to plan for the replacement of old structures with new buildings and the erection in residence sections of adequate new structures. A comprehensive school-construction program must be based on adequate financing and careful study of the school plant for a considerable period of years. A plan looking ahead fifteen years and taking into account where children will live in the future is not unreasonable. A proper study must be made of the location of the present business and industrial areas and residence areas, and the prospect of development of each.

Dr. Strayer suggested that the studies and statistics of the American Telephone and Telegraph Company are an excellent starting point, but that they cannot be used without careful interpretation, based on an understanding of the racial, social, religious, and economic condition of the people. Such other facts as building permits, the birth rate, the development of the transportation system, etc., are all factors in a program. Finally, the best planned school-building program is of no avail if it is not sold intelligently and if the facts assembled are not used in a campaign which will convince the people of the necessity of the improved school plant. Dr. Strayer illustrated his points by maps and charts developed in a study of an extremely bad situation in the city of Lynn, Massachusetts, where an extensive rehabilitation of the school plant is now under way.

The meeting in the morning was rather hurriedly adjourned after some questions and general discussion of Dr. Strayer's paper, so that the members might board buses for a sight-seeing trip to Valley Forge and the historic points of interest round about.

#### The Banquet

The annual banquet on Wednesday evening was very properly the high point of the convention, so far as entertainment was concerned, and the Philadelphians made the best possible use of it in providing local speakers of note who discussed patriotic and historic topics from a local viewpoint. The Hon. Dimmer Beeber, member of the Philadelphia board of education and justice of the Pennsylvania Superior Court, took the opportunity in the course of his address to describe the Pennsylvania system of raising taxes in cities of the first class (Philadelphia and Pittsburgh). He showed that, while the school board is a taxing body, with ability to issue bonds and levy taxes, it is without direct responsibility to the electorate. This anomaly in the law makes the responsibility of the school-board members doubly heavy and emphasizes the fact that the board is a trustee who must be competent and careful in its consideration of policies and new undertakings. Mr. Beeber was rather pessimistic in his discussion of the form and structure of the American government and the permanence of our institutions. He pointed out that no form of government has been permanent and



BURTON INTERMEDIATE HIGH SCHOOL,  
GRAND RAPIDS, MICH.

H. H. Turner & V. E. Thebaud, Architects,  
Grand Rapids, Mich.

## Burton School, Grand Rapids, Michigan

H. H. Turner and V. E. Thebaud, Architects, Grand Rapids, Mich.

The new Burton School just completed in Grand Rapids is a combined grade and junior high school planned for the needs of children from the kindergarten to the ninth grade, inclusive.

We all agree that the American public school should be good enough for the best child in the land and, if it is good enough for the best child in the land, it won't be any too good then.

Beauty should be part of a child's heritage. Ugliness in any form should not be for him. The architects visioned, therefore, a house for children, a new school of freedom, of expression, of thoroughness, and of taste, artistically designed, since art is the appreciation of things beautiful based on the knowledge that the search for the truth is one of the most beautiful, lovely things in the world.

The type of the new school, therefore, is a low, spreading structure, 446 feet in length by 255 feet in depth, being two stories high with a three-story pavilion forming the central feature of the building. A reference to the block plan will show it placed on an axis with Kirtland Street with the principal entrance facing Buchanan Avenue. This position on the lot, which is a long, narrow site 297 feet wide by 791 feet in length, secures east and west exposure to the largest number of classrooms and brings the two gymnasias, the locker rooms, shower rooms, manual-arts shops and grade-school playroom to the rear and west of the classroom facilities. By reason of this position of the health facilities, the gymnasias, locker rooms, and playroom become convenient to the play fields at either end of the building.

The building is rectangular in plan, one third of a mile around the exterior perimeter, containing nearly three million cubic feet of space, divided into nearly one hundred rooms and having two large interior light courts to insure a maximum amount of light and sunshine to all parts of the building. The construction is of reinforced concrete and structural steel, with nonbearing clay-tile partitions. The exterior is of rough-texture buff brick laid with large natural mortar joints and pleasing brick patterns trimmed with a mat-glazed, cream-colored terra cotta, artistically modeled,

and Indiana-limestone base. An interesting color note is introduced in the polychrome terra cotta trim about the main entrance to the building.

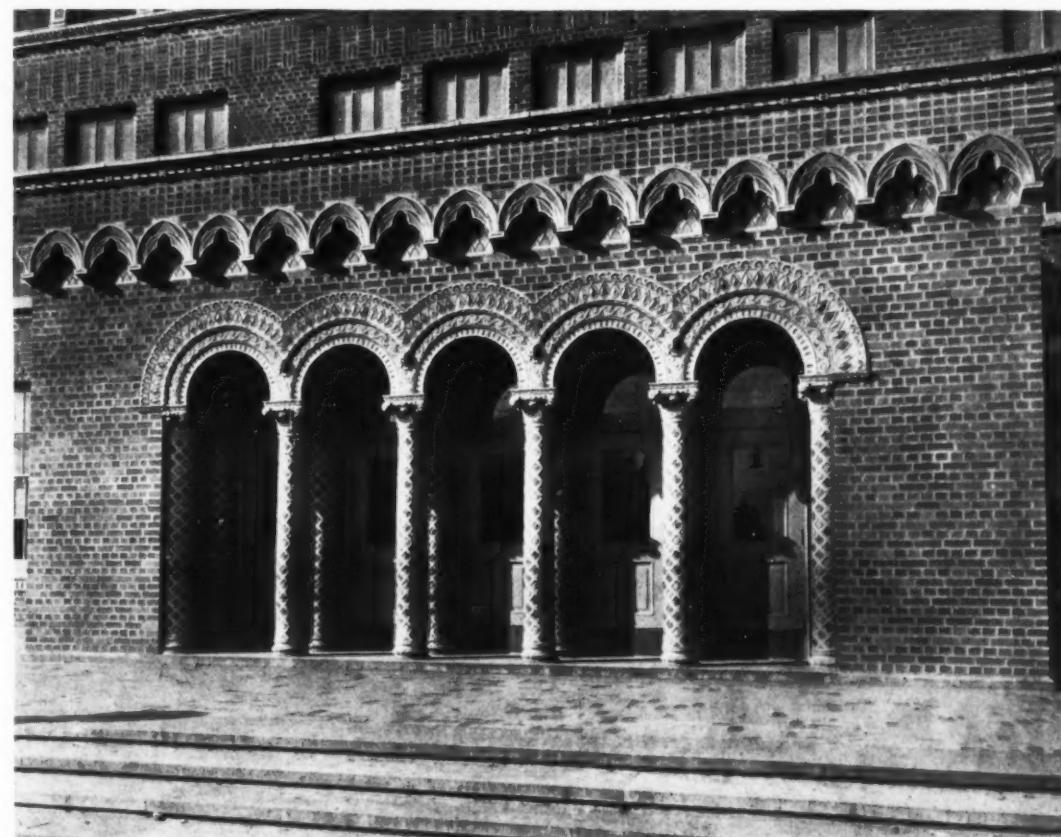
The corridors extending on four sides of the building connect with six sets of stairways and nine entrances. In addition to these nine main entrances, there are six other entrances which lead from the balustraded, brick-paved terraces flanking the central pavilion on either side, giving direct outside access to the branch library, study reference room, kindergarten department, and first-grade rooms.

Classrooms for the grade school are provided with wardrobes and the junior-high-school

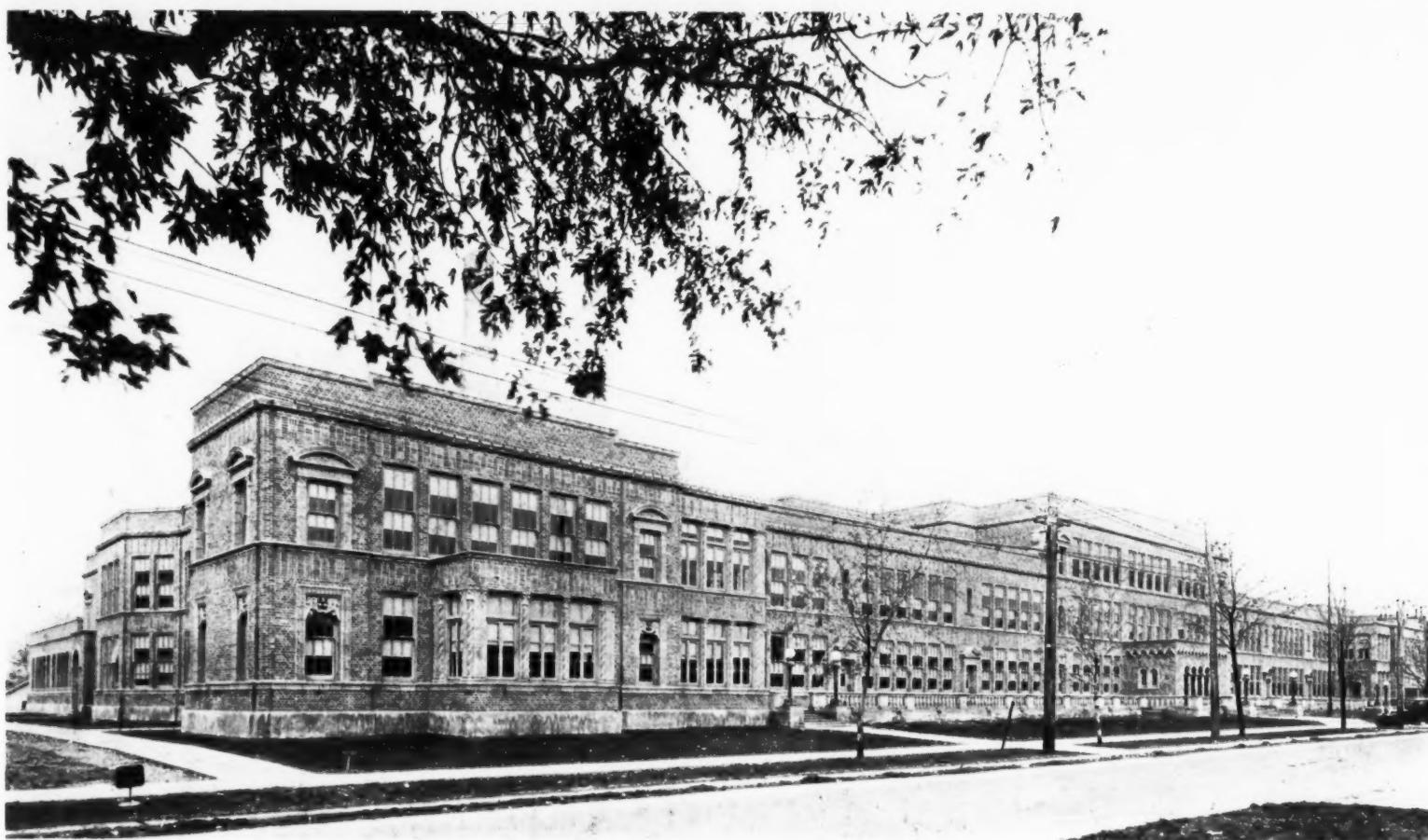
pupils have lockers in the corridors for their clothing.

The auditorium is of a size to accommodate 800 persons. It is equipped with a picture booth for stereopticon and moving-picture machines. The lower portion of the walls is covered with a stonelike material of pleasing color and texture, which besides making a durable wall surface has the additional merit of contributing to the acoustical efficiency of the room.

Two gymnasias, one for boys and the other for girls, are located in the rear of the building, up one flight of stairs. These two rooms can be converted into one larger gymnasium by rolling



DETAIL OF MAIN ENTRANCE, BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICH.  
H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.



BURTON INTERMEDIATE HIGH SCHOOL.  
GRAND RAPIDS, MICH.

back the doors which separate them. These doors are 22 feet high and fold up like books, and are easily run back into a pocket provided for the purpose. Galleries for spectators are on three sides of the enlarged room. Under the galleries are rooms for the instructors and storage space for the apparatus used.

Under each gymnasium, on the ground floor, are the showers, toilets, and lockers to be used in connection with each gymnasium. Here are also provided rooms, toilets, and showers for the athletic teams.

A generous playroom for the smaller children is located at the southeast corner of the building and adjacent to the east playground. This wing is built so that when the need arises, the walls may be carried up and additional classrooms obtained.

A cafeteria of a size sufficient to serve 400 persons at one sitting, with a fully equipped kitchen, is located on the second floor over the auditorium. On the same floor and directly accessible from the cafeteria is a dining room for the faculty. Immediately adjoining these facilities are the departments for domestic science and domestic art.

On the ground floor with an entrance for the general public opening off the west end of the front terrace are two large rooms: One is the branch public library and the other, opening off the library, is the study reference room. Both rooms are used by the students of the school.

Accessible from the northwest entrance, as well as from the west corridor, are rooms for the visiting nurses and dentist.

The science groups of rooms are located at the northwest corner of the building; one group with a conservatory in connection is on the ground floor and a second group is on the floor above.

The commercial group is in the center of the main wing facing east on the first floor. It comprises three rooms, one for stenography, one for typewriting, and one for commercial work.

There are two art departments, one for the grade school, the other for the junior high school. The grade school art department is located on the first floor and faces north in the

large interior court. The junior high-school artroom is located on the extreme north of the building on the first floor. These suites include workrooms for the instructors and have all necessary equipment for the storage of supplies.

The grade school has provision on the first floor and the south side, for a fresh-air department, where a maximum amount of sunlight may be had. There are two classrooms, a kitchenette, storage rooms for blankets, and a restroom containing 25 cots.

On the ground floor, fronting on Buchanan Avenue and the south playground, with entrances on the terrace, is the kindergarten room and two first-grade rooms in connection. This arrangement makes the department for the smallest children independent of the other de-

partments, and at the same time the usual means of communication are provided.

In the rear of the building on the north side (the junior-high-school side) on the ground floor and directly accessible to the driveway at the west of the grounds are the shops. These are a metal-working shop, woodworking shop, household-mechanics shop and printing shop. There is also adjacent to these shops a room for mechanical drawing with a blue-printing room for making reproductions of the drawings.

At the front, accessible directly from the front entrance, are offices for the use of the principals of the grade school and the junior high school and for the reception of those with whom the department heads have business. Here are located the telephone switchboard, vault for

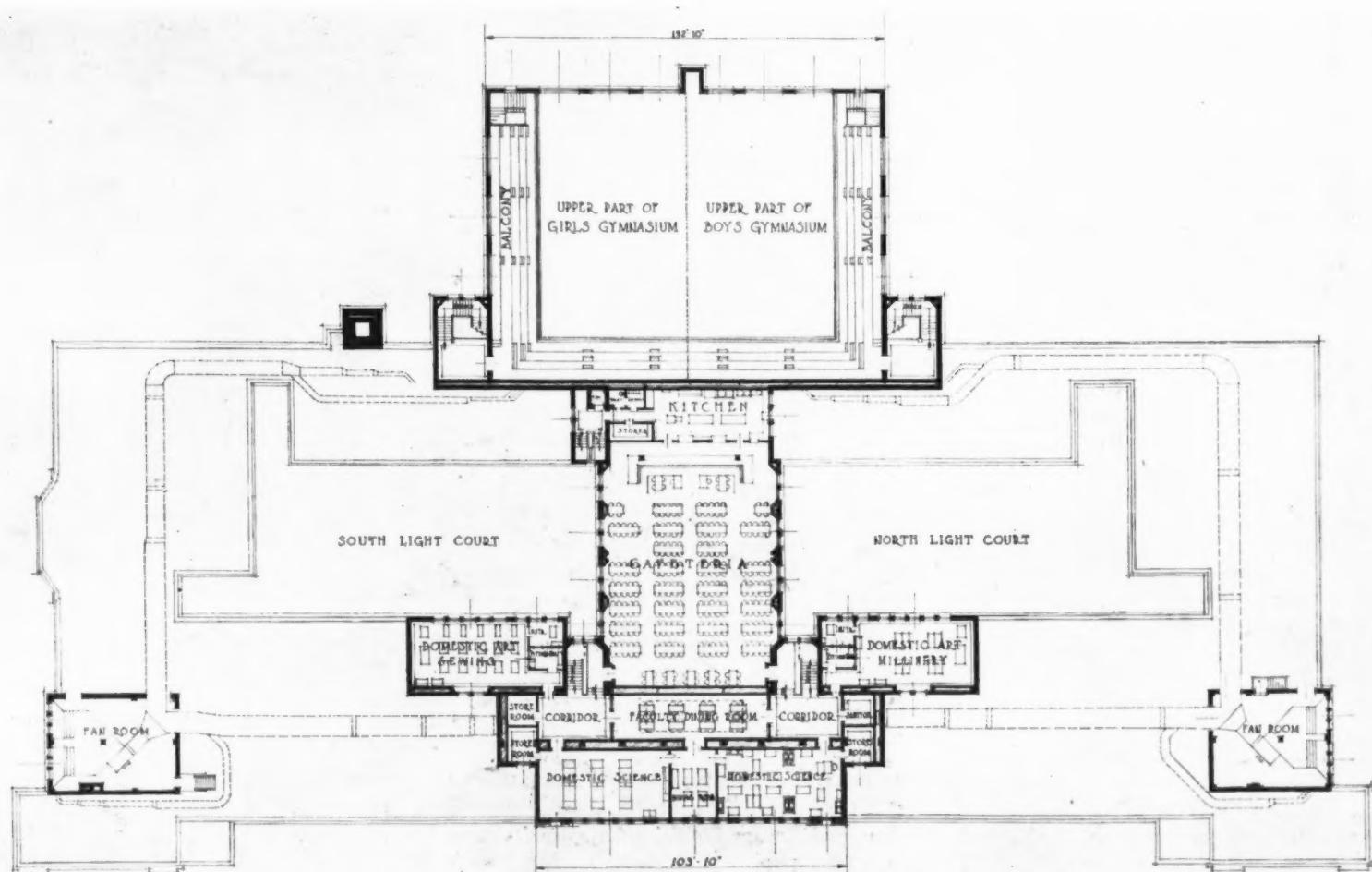


TYPICAL CLASSROOM, BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICH.

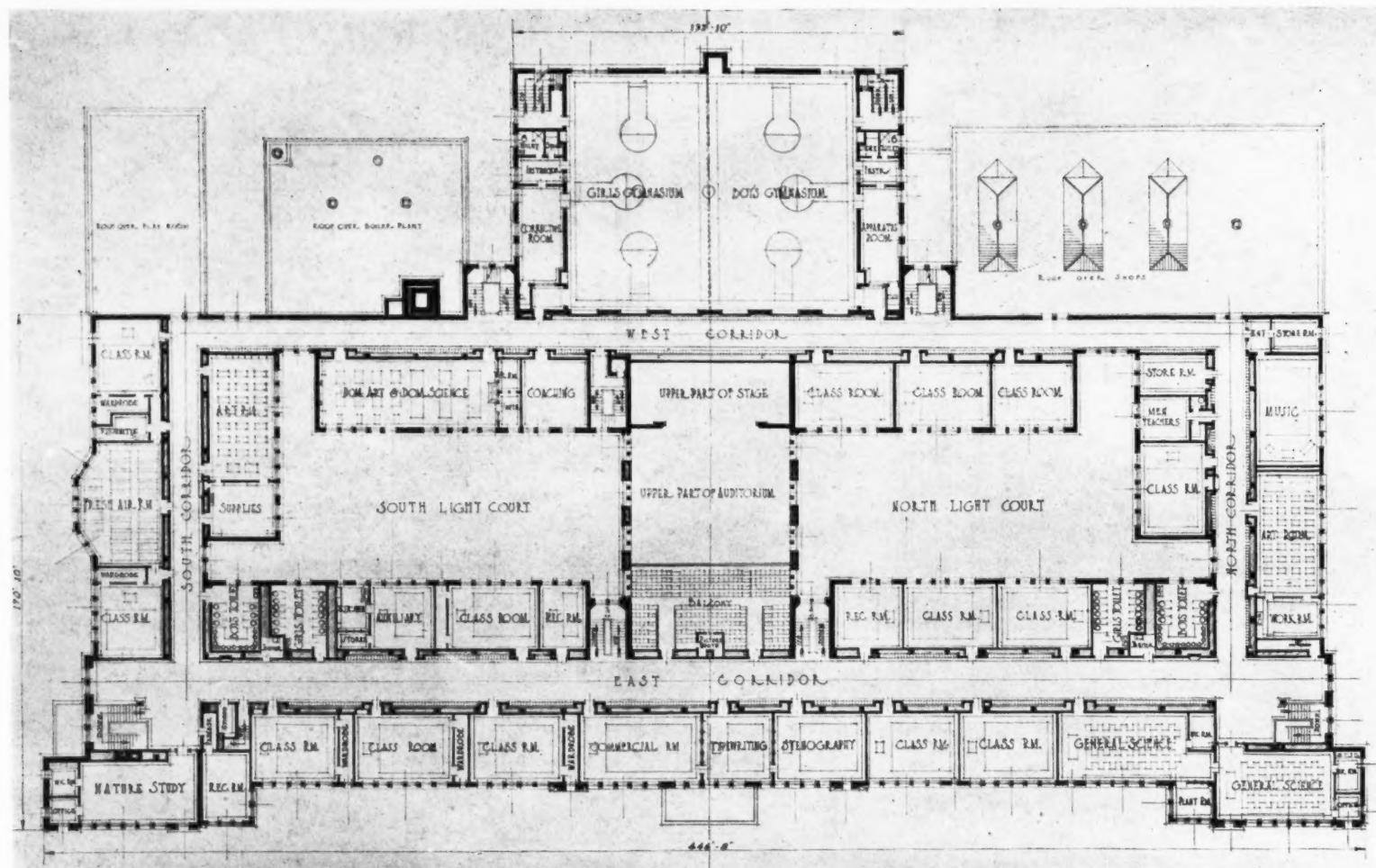


BURTON INTERMEDIATE HIGH SCHOOL,  
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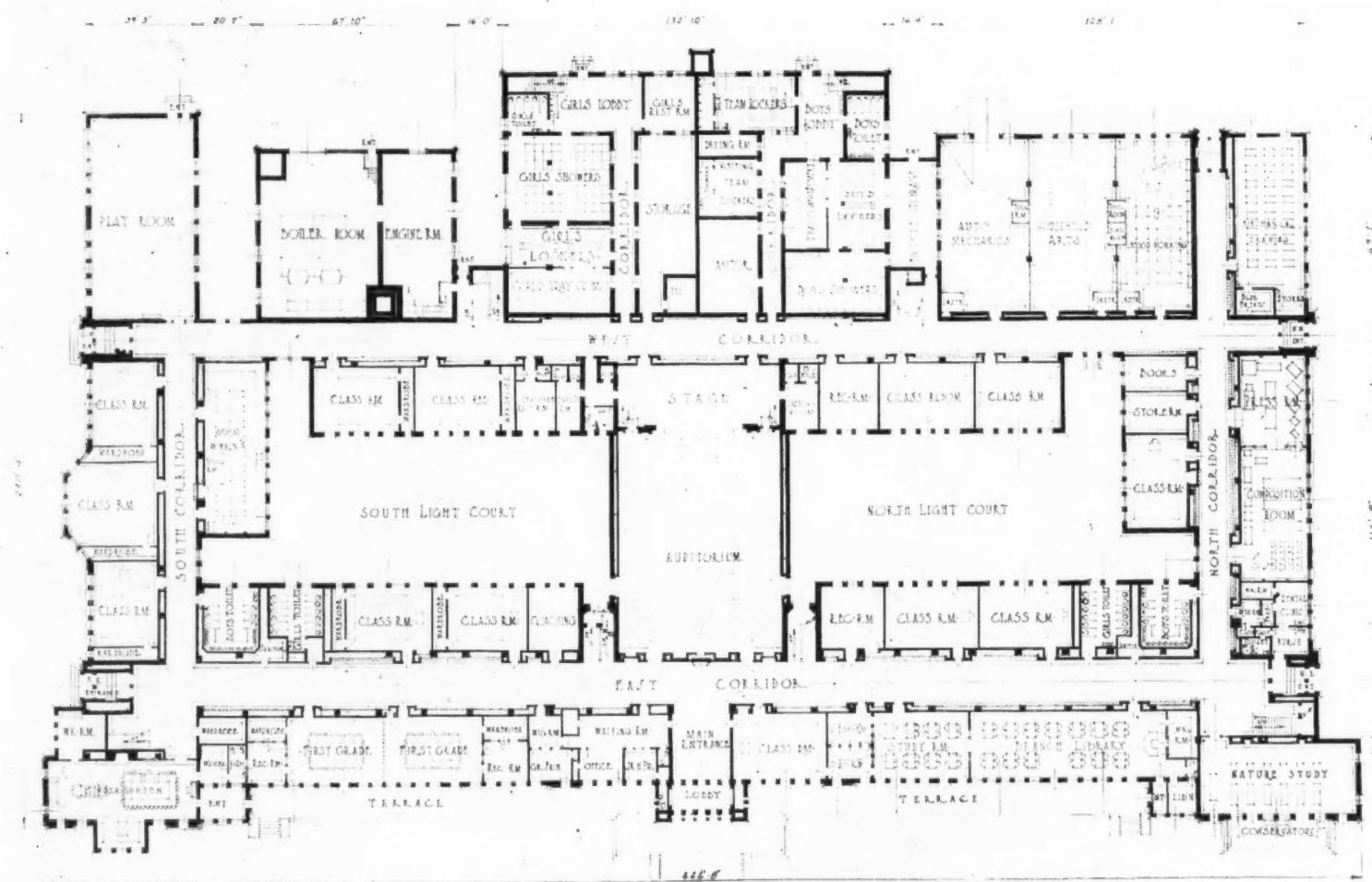
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SECOND FLOOR PLAN, BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICH.  
H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.



FIRST FLOOR PLAN, BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICH.  
H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.



GROUND FLOOR PLAN, BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICH.  
H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.

the records, the master program clock, and accommodations for the clerks required for the transaction of business connected with administration of the school.

There are special rooms for coaching of pupils who have lost time due to absences, also a suite of rooms consisting of classroom,

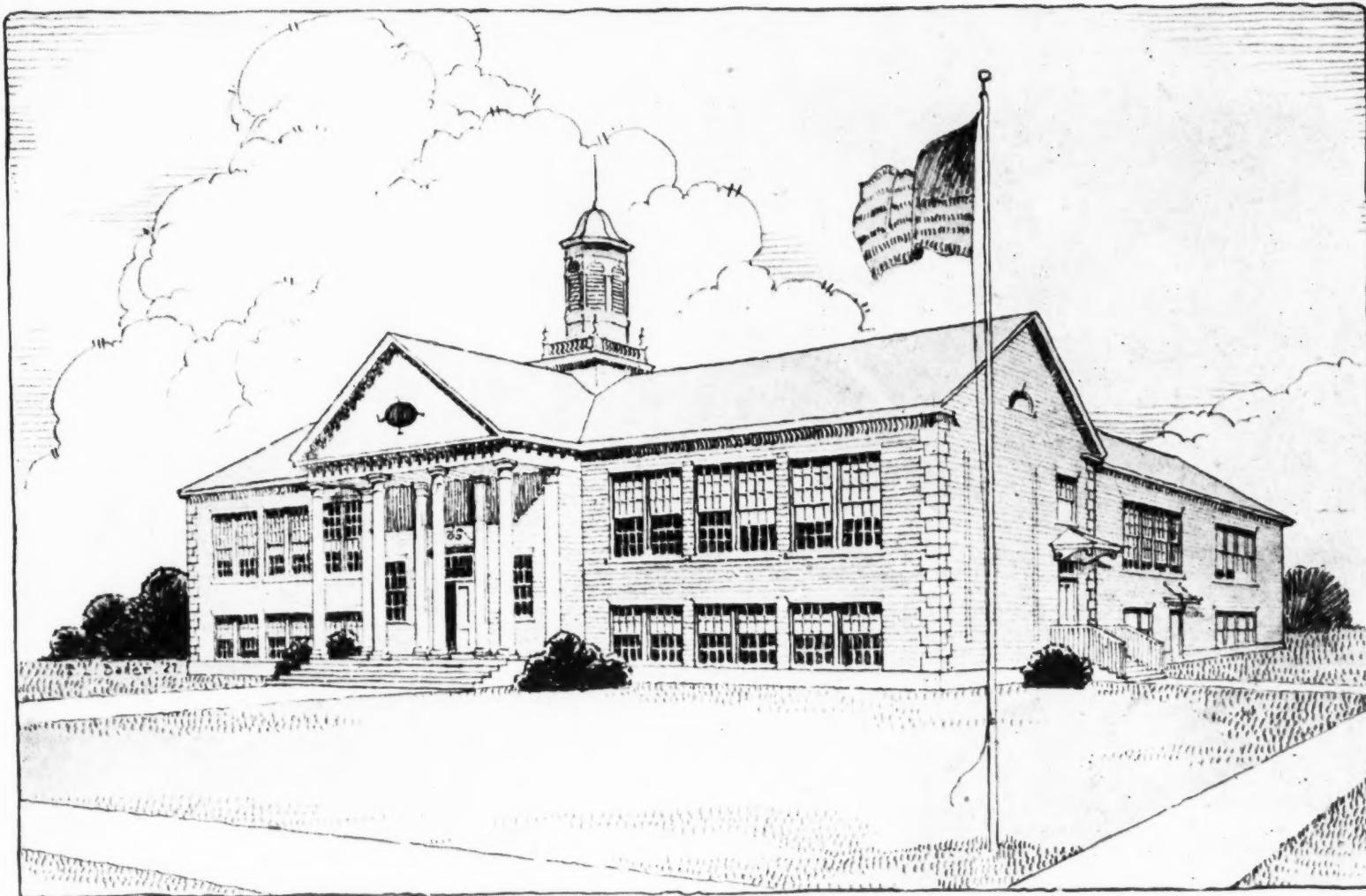
kitchen, and storage facilities for special classes for retarded pupils. Restrooms equipped with toilet facilities are provided for both men and women teachers.

The corridors are of generous width and have linoleum coverings with terrazzo borders. There are six main stairways of reinforced con-

crete, two located at the extreme northwest and southwest corners of the building, two adjacent to the auditorium and cafeteria, and two at the gymnasium wing. These have been so located to minimize travel.

On the ground floor near the northwest entrance is a room for the storage of books and a

(Concluded on Page 148)



TEATICKEt GRADE SCHOOL,  
FALMOUTH, MASS.

Haynes & Mason, Architects,  
Fitchburg, Mass.

## Some School Buildings of Moderate Cost

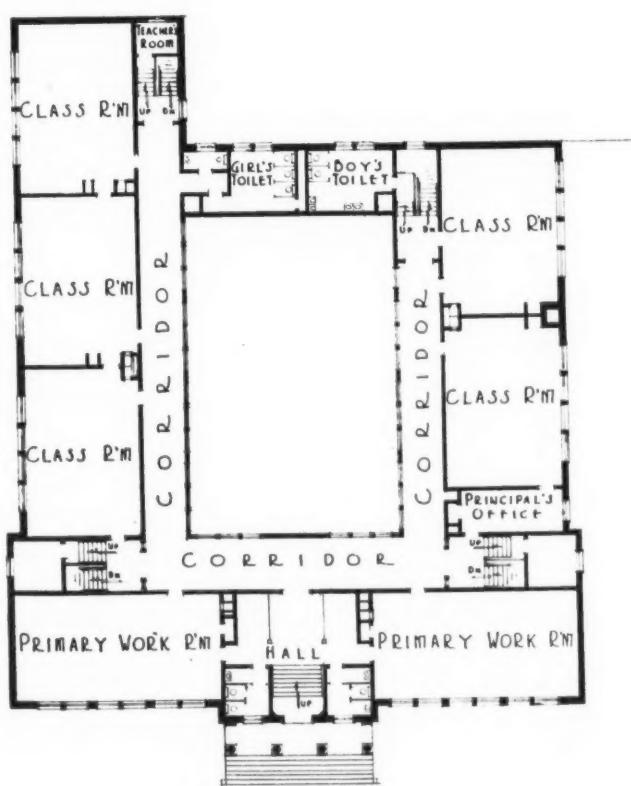
Architects and school authorities in the large cities frequently complain about their growing problems in providing school accommodations. They point with concern to buildings which are rapidly becoming obsolete, because of shifting school populations and broadening school programs. They speak with fear about new sub-

divisions that seem to grow like mushrooms, and they have difficulties concerning the bonding, the all too slow growth of the assessed valuations, etc. In spite of all this worry, they continue to make each new grade school building better than the last one and every new high school is a more elaborate and more inclusive

palace of secondary education than the previous one.

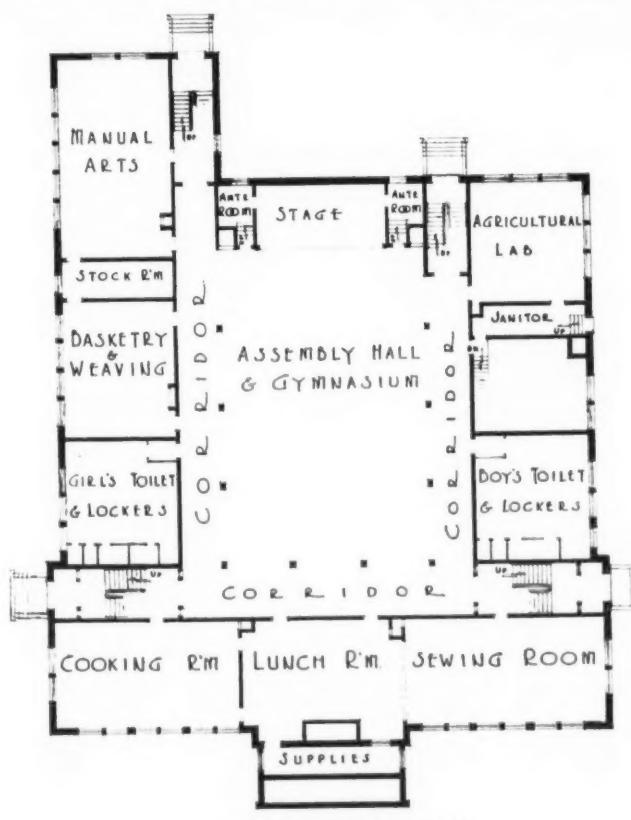
City school authorities generally feel that the problems of school architecture and school finance in small cities and in the rural districts are comparatively simple. They view the small, simple, and economical buildings in these communities with something like disdain, because they unconsciously make comparisons with the half-million- and million-dollar projects in the large centers. They overlook altogether the fact that many a small school represents a far greater sacrifice of money, time, and labor on the part of the school boards, the superintendents, and the architects, than does any one of their pretentious buildings.

The architect who puts up one school building in a decade, or perhaps in a lifetime, and the school board that is concerned with one school building in a generation have an exceedingly difficult problem to solve. This problem is usually coupled with a financial situation that approaches the utmost limit of taxing and bonding ability, and is almost invariably handled in the face of determined opposition from at least a good portion



FIRST FLOOR PLAN.

FLOOR PLANS OF THE TEATICKEt GRADE SCHOOL, FALMOUTH, MASS.  
Haynes & Mason, Architects, Fitchburg, Mass.



GROUND FLOOR PLAN.



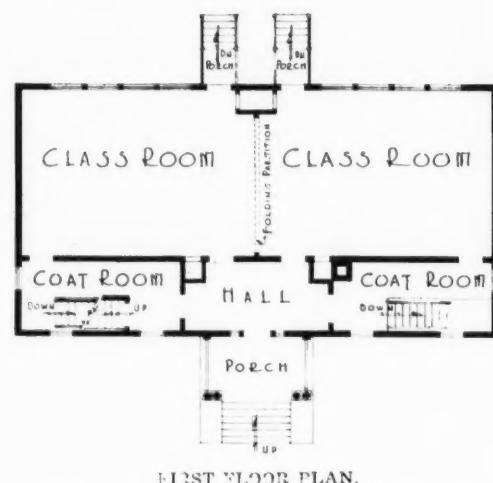
MORNINGDALE GRAMMAR SCHOOL,  
BOYLSTON, MASS.

Haynes & Mason, Architects,  
Fitchburg, Mass.

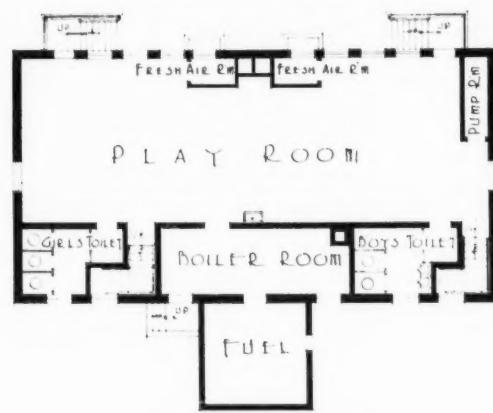
of the community. Where the city school authorities and architects have a large, interested, and experienced group of school experts to help, the rural school authorities either have none whatever, or at the very best have the distant help of correspondence with a state department official, who rarely has a good insight into the local needs and opportunities.

In the present issue of the JOURNAL are presented a group of school buildings in New Eng-

land, which represent a sincere and successful effort to meet the problems of rural school districts where there is utmost need for economy and broad educational service. The buildings are the work of a firm of architects that has for many years specialized in village and rural work, and has to its credit a large number of serviceable and economical school buildings in Massachusetts and New Hampshire.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

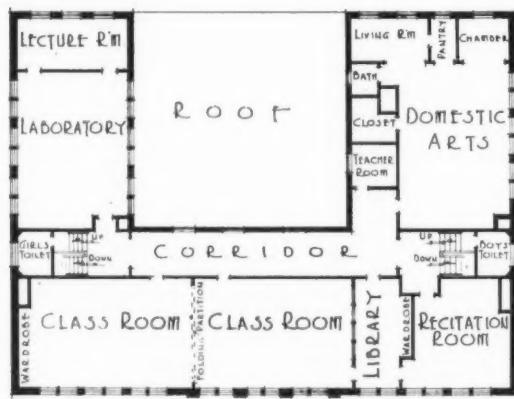


FLOOR PLANS AND INTERIOR VIEW OF  
MORNINGDALE GRAMMAR SCHOOL,  
BOYLSTON, MASS.

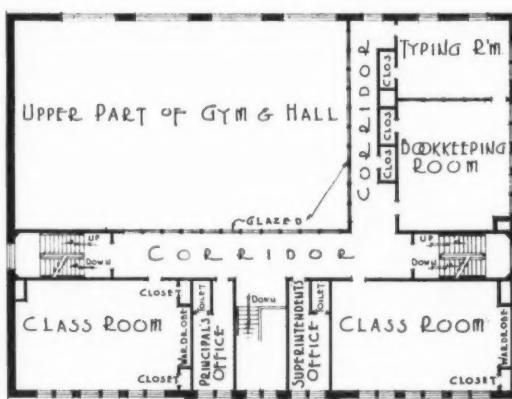


HILLSBORO HIGH SCHOOL,  
HILLSBORO, N. H.

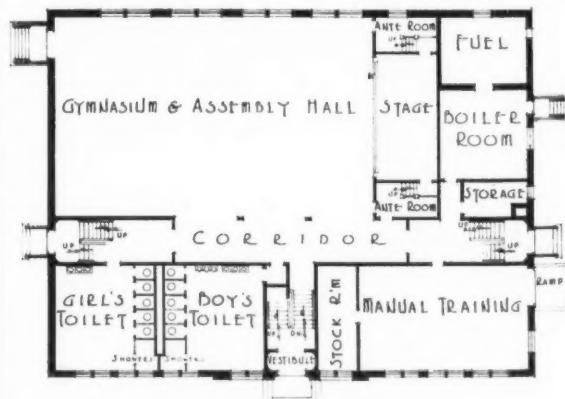
Haynes & Mason, Architects,  
Fitchburg, Mass.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

#### The Teaticket Grade School

The Teaticket grade school at Falmouth, Mass., represents an interesting and extremely compact plan. The ground floor, which is well above grade and has full length windows almost throughout, contains the shops and workrooms. The manual-arts department is in one corner where it is least likely to disturb the balance of the school. Adjoining it is a stockroom, and beyond this there is a special room for various activities. The household-arts department has been arranged to occupy the space across the front of the building. The cooking room occupies one corner and the sewing room another corner, and between the two there is space for



GEORGE S. BALL SCHOOL,  
UPTON, MASS.

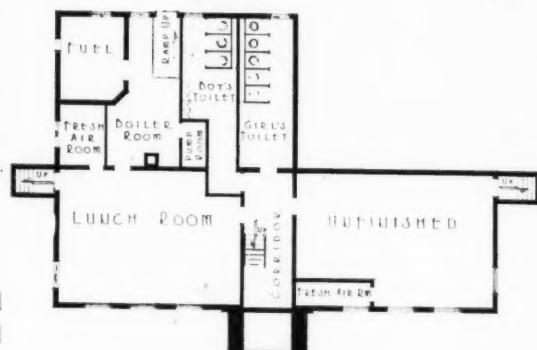
the lunchroom and for supplies. A folding partition has been provided so that the sewing and lunchroom can be opened up on special occasions when there are overflow crowds. There

are also on this same floor an agricultural laboratory, toilet rooms, and the boiler and janitor's rooms.

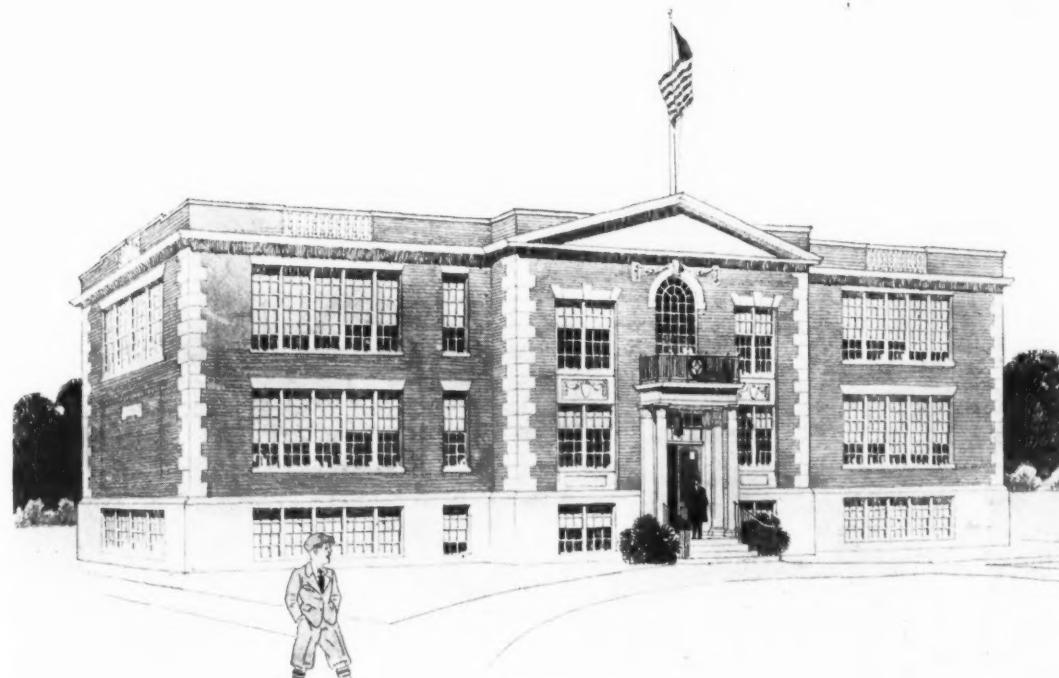
Haynes & Mason, Architects,  
Fitchburg, Mass.



FIRST FLOOR PLAN.

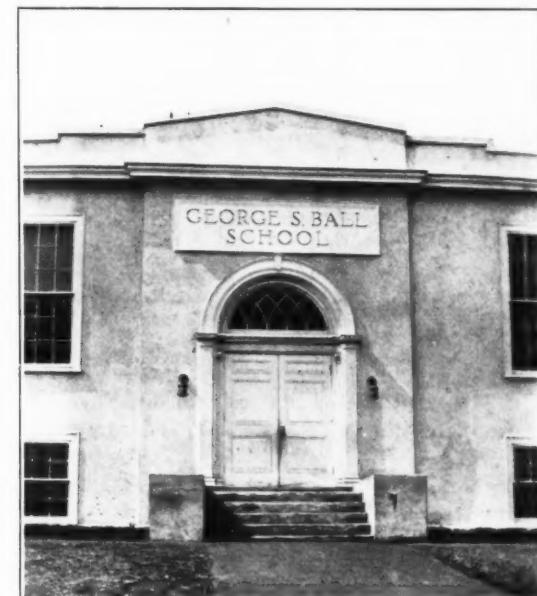


GROUND FLOOR PLAN.  
Haynes & Mason, Architects, Fitchburg, Mass.

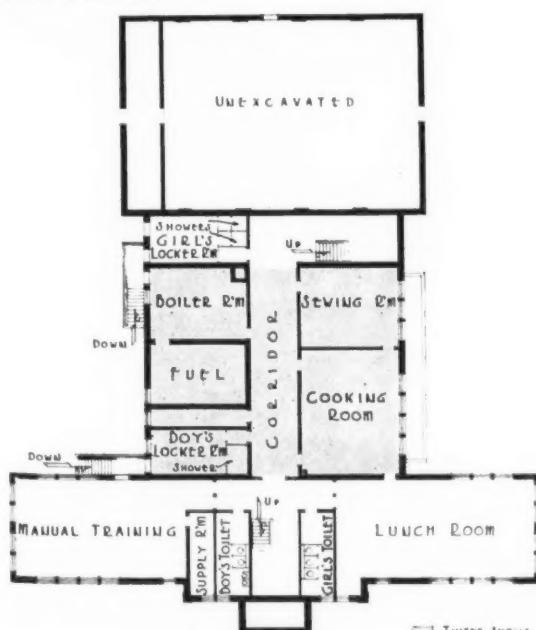


GROTON HIGH SCHOOL,  
GROTON, MASS.

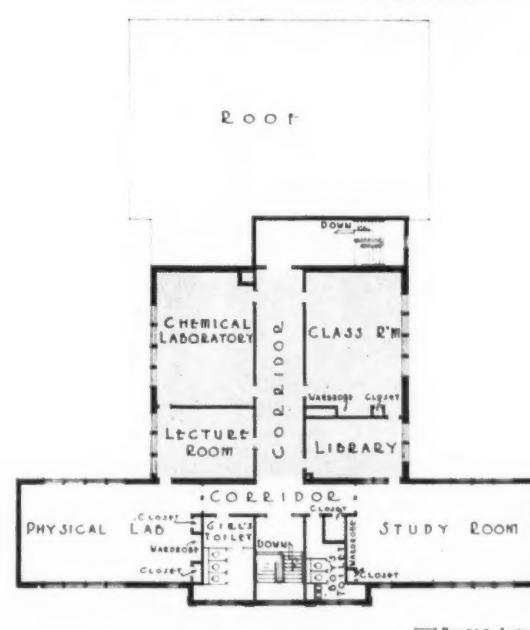
Haynes & Mason, Architects,  
Fitchburg, Mass.



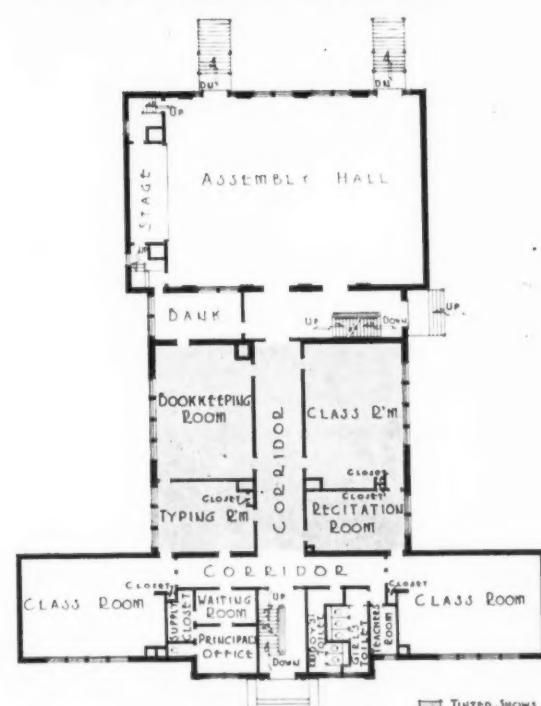
FLOOR PLANS AND ENTRANCE DETAIL OF  
GEORGE S. BALL SCHOOL, UPTON, MASS.



GROUND FLOOR PLAN.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

On the first floor there are five classrooms, seating 35 pupils each. These are equipped with Chicago-type wardrobes and book and teachers' closets. The primary department on this floor consists of two classrooms to accommodate 35 pupils each, and is arranged as a unit with a separate entrance, toilets, and coatrooms. These primary rooms are equipped with work tables instead of desks. There are also on this floor toilets for boys and girls, and teachers; two supply rooms, a teachers' room, and an office for the principal.

The outside walls of the building are constructed of concrete tile, faced with brick, and trimmed with cast stone. The roof is covered with slate, except over the assembly hall where tar and gravel has been used. The sheet-metal work outside is entirely copper. The interior construction includes fireproof stair wells, but the classroom floors and the nonbearing partitions are of frame. All the interior walls have metal lath and gypsum plaster and metal ceilings, except in the boiler and manual-training rooms, where wire lath and plaster have been used. The ceiling of the manual-training room has been soundproofed. The building is heated by a vacuum-vapor system and each classroom has a unit ventilator. Separate blackboards, program clocks, a fire-alarm system, and the latest type of sanitary plumbing are included in the equipment of the building.

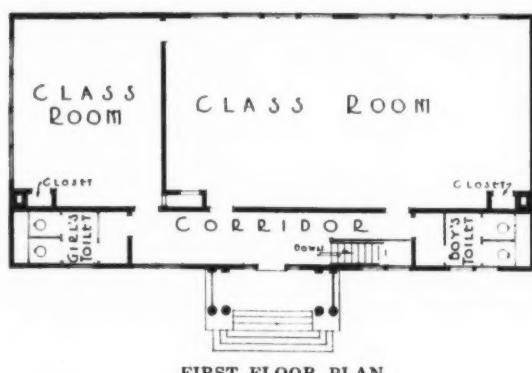
The cost, including heating, plumbing, and electrical work, was \$100,000.

#### The Groton High School

The Groton high school represents a successful remodeling of an old school building which was in good condition physically, but which had outgrown its usefulness because of the expansion of the school program and the growth of the school population. The original building was carefully overhauled and the fenestration was changed to increase the amount of light and to make it unilateral. A study of the plans will show how classrooms and other facilities were added at the front of the old building and how an assembly hall was added at the rear.

The ground floor of the building now contains a shop for the manual-training department, with an adjoining supply and stockroom, a lunchroom, a large cooking laboratory, and a sewing room. Toilets and shower rooms for boys and girls have been installed. The boiler and fuel rooms have been left in their original location.

(Continued on Page 138)

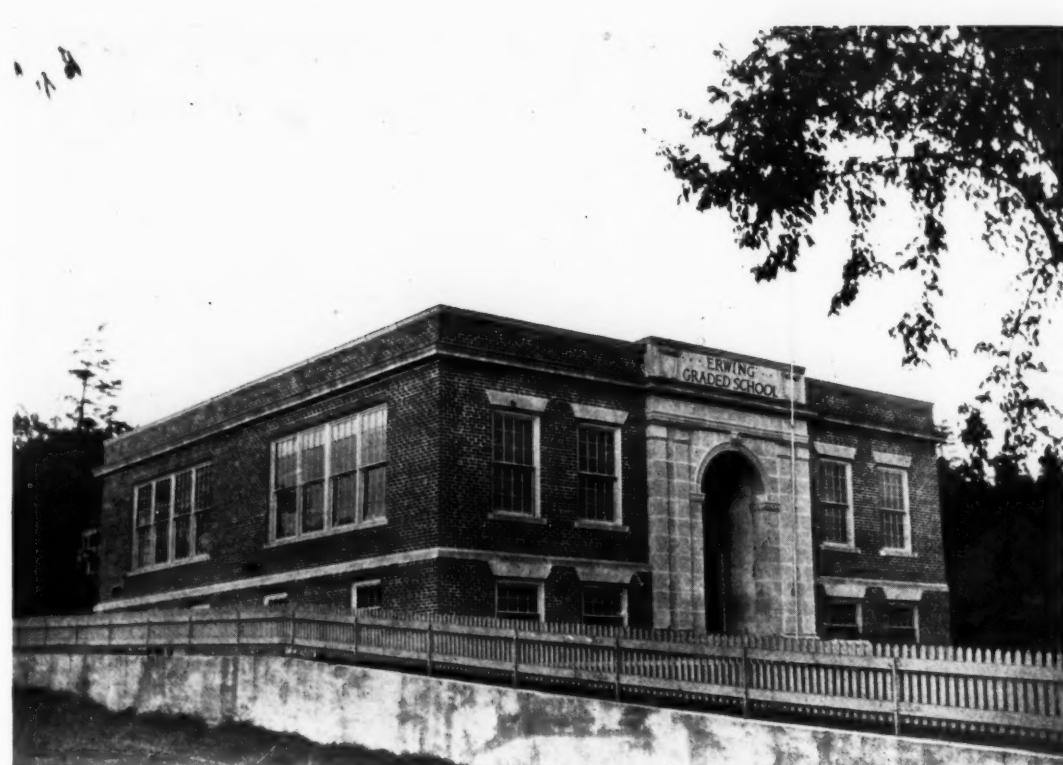


FIRST FLOOR PLAN.



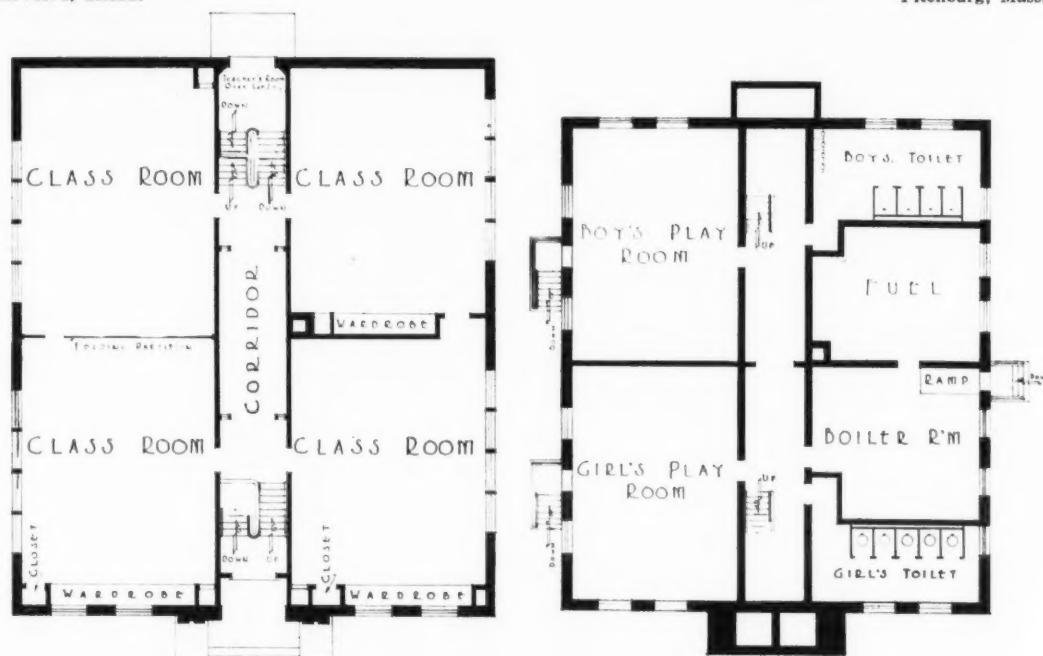
GROUND FLOOR PLAN.

FITZWILLIAM HIGH SCHOOL, FITZWILLIAM, N. H.  
Haynes & Mason, Architects, Fitchburg, Mass.



GRADED SCHOOL No. 1,  
ERVING, MASS.

Haynes & Mason, Architects,  
Fitchburg, Mass.



FIRST FLOOR PLAN.

GROUND FLOOR PLAN.

FLOOR PLANS OF GRADED SCHOOL No. 1, ERVING, MASS.

Haynes & Mason, Architects, Fitchburg, Mass.



FITZWILLIAM HIGH SCHOOL,  
FITZWILLIAM, MASS.

Haynes & Mason, Architects,  
Fitchburg, Mass.

## A Preliminary Note on Radiant Body-Heat and the School Ventilation Problem

Thomas J. Duffield, Executive Secretary, New York State Commission on Ventilation

Satisfactory temperature conditions in the classroom can be established and maintained only when the loss of body heat from each pupil is not interfered with by similar processes of his neighbors or by other bodies. In the classroom, the pupil loses body heat by evaporation, convection (including conduction), and radiation. It is only through thorough consideration of each of these types of body-heat loss that we can hope to determine logical standards of floor and airspace per pupil for classrooms.

The heat required to evaporate the moisture both in the lungs and from the body surface is a real loss as far as the pupils are concerned, but the heat loss by evaporation does not enter into the problem of ventilation, because the heat has disappeared in the form of latent heat or *vaporization*. Modern ventilation—using that term in the strict sense—can cope successfully with the problem of removing the *convected* heat, which, under normal conditions of schoolroom construction and occupancy, is transferred by *conduction* to the air which surrounds the body. The air, thus heated, expands, rises and may be readily removed and replaced by cooler air. In these ways, two of the three forms of body-heat loss are accomplished, but concerning the third form—*radiation*—very little experimental work appears to have been done.

A body loses heat by radiation if it is at a higher temperature than the objects that surround it. Conversely, a body is warmed by radiant heat if it is at a lower temperature than neighboring objects. Between bodies of equal temperature, the heat loss by radiation is just equal to that absorbed. The intensity of the radiant heat from a body varies inversely as the square of the distance from it.

From the ventilation standpoint, all that is required in the matter of ceiling height is that it be sufficient to give a zone in which the air change may take place without causing drafts on the pupils. Whether it be 9, 11, or 13 feet is of little moment so far as ventilation is concerned. In any case, this figure will probably be dictated by the lighting requirements.

The temperature of the pupil's private air column (i.e., floor space by ceiling height) will be raised by his convected heat at the rate of 1° F. per 55 cubic feet (approximately) for each B. t. u. of heat output. Increasing or decreasing the ceiling height by 1 foot would affect the time of heating this air column by less than 4 minutes if the floor space were as great as 18 square feet, the difference between the incoming and the outgoing air as great as 10° F. and the heat loss by convection were but 1 B. t. u. per minute.

The allowance of floor space per pupil in classrooms appears to have developed because of desirable aisle widths and distance of the pupils from blackboards at the front of the room rather than from the consideration of the radiant heat from the pupils and from artificial sources. From this latter point of view, floor space in classrooms appears far more important than air space, from the standpoint of ventilation, using that term in this instance in the general sense.

In this connection, a recent letter from a school architect in one of our larger cities is of interest. The sketch which accompanies his letter shows a classroom 23 ft. by 28 ft. by 11 ft. 6 in. The area is 644 square feet, and the "cubage" is 7,406 cubic feet. The room is designed for 42 elementary-grade pupils or 35 junior- or senior-high-school pupils. By the usual methods of computation, this would mean that if the room

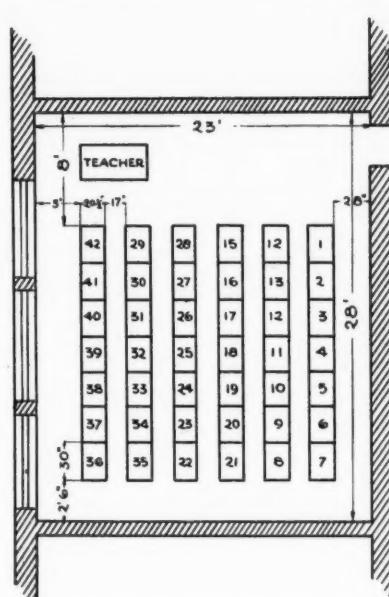
7. With the ceiling height 11 ft. 6 in., this means that the volume of the private air column of each pupil varies from 89.1 to 135.3 cubic feet, an average of 126.5.

8. Twenty (20) of the 42 pupils are completely surrounded by their radiant neighbors at a distance of 16 to 24 inches (3 feet, center to center sideways, and 2½ feet, front and back); others are partially surrounded in the same manner (on two or three sides), and, with the exception of those in the front row, they are exposed to walls (or steam radiators, presumably) at only slightly greater distances on the other sides.

The inference that the minimum floor-space allowance per pupil in this design is insufficient is not warranted. It is possible that these per capita areas may even be considerably reduced and that radiant body heat from the pupils could be utilized to maintain comfort, with the air temperature of the classroom much lower than practiced at present. However, it is evident that the pupil's body-heat loss by radiation will be materially affected by these different conditions. Unless the exposed surfaces of the steam radiators are efficiently covered by protective shields, their radiant heat will seriously interfere with the heat loss of the pupils near them. Likewise, unless pupils are sufficiently far apart, their heat loss by radiation will be seriously hampered.

In conclusion, it is clear (1) that the heat loss of the pupils by *evaporation* from the respiratory system and from the skin does not enter into the problem of ventilation; (2) the heat loss by *convection* can be satisfactorily accommodated by ventilation, i.e., by replacing the heated air by air of lower temperature, provided the ceiling height is sufficient to permit air change without creating drafts; (3) the heat loss by *radiation* can be cared for only if artificial sources of radiant heat in the classroom are properly shielded, and if adequate floor space per pupil in the seating section is provided.

Just what the area of this space should be is a matter requiring further study, but, by reason of the different factors affected, it is evident that the provision of additional air space by making ceilings higher cannot compensate for inadequate floor space. The amount of body-heat loss by radiation and the thermal gradients for pupils of different average ages must be investigated before standards of floor space in classroom design can be established scientifically and logically.



**SKETCH PLAN OF CLASSROOM FOR 42 PUPILS.**  
The area is 23 by 28 feet, or 644 square feet.  
Average area per pupil, 15.3 square feet.

were occupied by 42 pupils, the average floor space would be 15.3 square feet, and the air space 176 cubic feet per capita. For 35 pupils, the average per-capita allowance would be 18.4 square feet and 217 cubic feet, respectively.

When the room is used for 42 pupils, detailed examination of the sketch reveals the following facts:

1. The distance from the front wall to the front row of desks is 8 feet.
2. The distance from desk front to desk front is 30 inches.
3. Desks are 20½ inches wide.
4. The outside aisle, in which steam radiators are presumably located, is 3 feet wide; the inside aisle is 2 ft. 8 in.; aisles between desks are 17 in. wide.
5. The area of the seating section (i.e., the total area of the room less the open space between the front row of desks and the front wall) is but 20 by 23 ft.,—460 square feet.
6. The average per capita floor space in the seating section is slightly less than 11 square feet—for a pupil not in the front, back, outside or inside rows, the floor space is but 7¾ square feet.

## Burning Questions of the School Board

C. C. Hermann

We often hear the remark, "as free as air," yet air is at times the most expensive element we are forced to contend with. Air is an oxidizing agent. It attacks practically everything, especially that which contains carbon as one of the constituents. Iron contains carbon and is attacked by the air, such attacks indicated by the layer of rust or oxidation prominent on the surface of unprotected iron. It attacks coal because coal contains carbon and the oxygen of the air combines with the carbon to form carbon-monoxide and carbon dioxide. The rapidity of the attack depends upon temperature. As we increase the temperature of the iron or coal, the formation of the products of combustion increase in formation rate. It is a fact, therefore, that combustion is going on continuously all about us in varying degrees for the formation of a gas by the uniting of carbon and oxygen is combustion.

We prefer to limit the definition of combustion to the temperature at which sensible heat is obtained or thrown off by the chemical action of carbon and oxygen. However, such limitation is more or less arbitrary; it is a practical definition and the combustion or heat thrown off

by the oxidation process at atmospheric temperatures has no practical value at this time. We would like to know, however, how to prevent it in a practical manner. We would like to know how to save the investment from gradually burning up before our eyes. We would like to know how to prevent steel from crumbling day by day and how to seal the carbon therein so that the characteristics and structural form of the steel will always remain the same. We would like to know how to prevent the air from robbing the coal pile of its carbon, because we want to use that carbon in the production of heat for a useful purpose.

We are told to paint the steel and store the coal under water. How easy; yet, the painting of the steel merely places a substance between the steel and the free atmosphere; a substance that is in turn subject to attack, and the painting must be done year after year. Air oxidizes paint too, in fact, air attacks practically everything we know of in some degree, but it makes rapid disposal of paint. The paint is used merely because it is the cheaper or more economical thing to do and not because of any

anticipation that now the problem has been solved for all time.

But one cannot paint coal. Such a procedure would be termed an economical waste of material and time. Some other protection must be sought. Coal is extremely perishable because it is vegetation, basically. We know that vegetation, once removed from mother earth, deteriorates very rapidly. To preserve vegetation it must be kept in the soil. So it is with coal; to preserve coal it must be kept in the earth. That is why the coal mines work from hand to mouth in matters of production and deliveries. The large operators never keep a large supply on the surface. Shipments and production run neck and neck.

Likewise the consumer should never keep a large supply on hand over and above that which will be used during the season. Heating requirements must be accurately gaged and coal purchased to meet the demand. An overpurchase means an oversupply and consequently an economic waste.

There are several important things to take into consideration in the storage of coal.

First, we must avoid all unnecessary handling. The storage space should be as near the point of consumption as possible to avoid rehandling from the point of storage to the firing aisle. It is best to purchase in car quantities in order to avoid the handling by the local dealer from the car to his bin, and then from his bin to the point of consumption. Every time the coal is handled it is broken up into smaller pieces, additional dust is produced and there is an appreciable reduction in volume. The oxidation depends upon the area of coal surface exposed to the atmosphere and every rehandling presents new surfaces which absorb oxygen from the air and results in increased depreciation of the heat value.

Second, the absorption of oxygen by the coal depends upon the exposed surface. That is, the surface of coal exposed to the free air, or the



A. L. THRELKELD,  
Superintendent of Schools-Elect,  
Denver, Colo.

Mr. Threlkeld, who was formerly deputy superintendent of schools at Denver, Colo., was recently appointed as superintendent of the school system, to succeed Mr. Jesse B. Newlon, who goes to Lincoln School at Teachers College, New York.

Mr. Threlkeld has had an extended professional career. He is a graduate of the State Teachers' College at Kirksville, Mo., and holds degrees given by the University of Missouri and Teachers College, Columbia University. He has had a varied experience as a superintendent, having filled that office in various schools in Missouri, the last one at Chillicothe, where he remained for four years. He was an assistant superintendent at Denver for four years, and for the last two years had filled the office of deputy superintendent.

Mr. Threlkeld will take up his new work in September, at which time he will be succeeded by Mr. Homer W. Anderson, formerly assistant superintendent of schools.

top of the pile principally. The sides are also exposed to the air when the coal is stored in the open and in a small degree when stored in a bin built of wood with cracks between the boards. When stored in the open, as in a yard, the exposed area is greatly increased over what would be the case in a bin, so that outside storage should be avoided if at all possible. Further-

more, the coal in transportation is subject to not only the free atmosphere but rain and other weather conditions so that coal which has been a long time in transit should be avoided. Some assurance should be obtained that the coal will be tipple loaded and shipped immediately. The coal should be unloaded without loss of time into well-constructed bins.

Third, coal high in iron pyrites should be avoided if storage will be of any duration of time. Iron pyrites seem to be the dangerous elements in coal, causing spontaneous combustion to take place especially when considerable moisture is present in the coal. Thus wetting down of the stored coal is in a degree bad not only from the point of consideration that spontaneous combustion may result, but that it assists in separation of the coal in the pile. The temperature of stored coal will, under the influence of spontaneous combustion, rise very slowly up to approximately 180 degrees, but from this point on the temperature rise will be very rapid. Thermometers placed in the coal pile can be relied upon to guide procedure in regard to measures to be taken. Obviously there is but one thing to do when spontaneous combustion takes place and that is to move the coal. Get the heated portion out of the bin and away from the balance of the coal.

Fourth, it is advisable to avoid slackening of the coal so far as possible. The coal exposed to the atmosphere will slack in the early stages and may result in a loss of heat value due to grate conditions. Insofar as slacked coal is concerned there is no great loss of heat in the coal itself. The heat loss to an appreciable extent only comes later when the coal shows signs of heating. Slack coal will heat quicker than lump because of the fineness of the particles, whereas in the lump the external surface of the lump is the only portion subject to the atmosphere. When once the coal is thoroughly slacked further disintegration takes place and the temperature rises rapidly, indicating a considerable loss of heat.

## The Purchase of School Supplies

Harry L. Buckalew, Fresno, Calif.

Few businesses in the United States are conducted on such a huge scale and expend such large sums of money as do our public schools. And few businesses spend their money with as little effort toward true economy. We, who are styled educators, need to be more concerned with how we spend public tax moneys, and with results obtained from them. This is particularly true in the purchase of instructional and janitorial supplies.

### Legal Status of the Purchase of Supplies

A survey of the school laws of the various states gives us a very interesting insight into the practices of the states in the matter of purchasing supplies. The extent to which supplies are furnished varies considerably among the states; some supply only the bare necessities, while others purchase practically every item of supply used by the pupils. Less than one half of the states require bids to be submitted on supplies, or have any restrictions whatsoever in their purchase. Twenty-two states require bids when the amount to be expended exceeds a fixed amount, ranging from \$50 to \$500.

In one state (Delaware) all supplies are bought by the state board of education and furnished on requisition to the districts, except in cities where the boards of education are privileged to select and buy their own supplies. This system is probably satisfactory in such a small state, but it would be of doubtful value in other states, where single counties are as large as Delaware. It represents, however, a decidedly progressive position in our field.

Three states, Nebraska, South Carolina, and Oklahoma, have a form of control in which all prices are set by contract with the state board of education. Samples are submitted and the prices must stand for a set period of years. The supply houses to whom have been awarded the contracts, then take the orders from individual districts.

This system is much better than hit-or-miss ordering, because prices are fixed and are uniform for all districts. Prices will, of course, be lower, since only those who are awarded contracts may sell to the schools. It is doubtful, however, if the prices are as low as they would be in competitive bidding on large quantity orders. An added advantage is the uniformity and quality of goods secured by the requirement that a sample be deposited, which must be equalled or excelled in every sale.

### Size of Units

In 35 states the school district is the unit for the purchase of supplies. In three, the township; and in one other, the parish (equivalent to county) is the unit. Eight states have made the county the purchasing unit, and in one the state itself does the buying. In about five sixths of our states then, the school district, which, next to the ward and precinct in the city, is our smallest political division, is the unit for purchasing school supplies. Further mention will be made of this fact after the data have been presented.

### A Study of the Purchase of Supplies in California

The legal provisions in California have made it possible to study the purchasing methods of school districts rather accurately. All warrants issued by the boards of trustees of the school districts must have an itemized bill attached. Warrants when paid are filed in the office of the county auditor. In this office the author reviewed the school warrants for the year July 1, 1922, to June 30, 1923, for Alameda county. From the 57,325 warrants reviewed, the desired data on certain representative items of school supplies were transcribed to a special sheet and the data then segregated. The result was a small book of material arranged like this:

No.	Quality	Firm	CHALK	
			Price per Gross	Total Price per District
10	Ideal	A*	\$ 9.00	\$0.90 May
4000	Purity	Dustless	1.620.00	.405 Oakland
6	Enamored	G	3.60	.60 Valle Vista

\*Code.

The data on each item were then thrown into distribution form and the median, mean, and quartiles determined. Because it is obviously impossible to publish all the distributions in this article a very typical one is reproduced.

Prices of Chalk		
\$0.25	\$0.29	xx
.30	.34	2
.35	.39	0
.40	.44	x
.45	.49	1
.50	.54	2
.55	.59	5
.60	.64	4
.65	.69	3
.70	.74	5
.75	.79	10
.80	.84	5
.85	.89	4
.90	.94	14

## SCHOOL BOARD JOURNAL

.95-.99	1.04	xxxxx	0
1.00-			5

Total ..... 71  
Median price, \$0.76; Q<sub>1</sub> price, \$0.57; Q<sub>3</sub> price, \$0.90.  
Average price, \$0.42; Total paid, \$3,148.20; Total Number of Gross Used, 7,551.

A summary of the data on instructional, athletic and janitorial supplies is included here.

The median is the fifty percentile, Q<sub>1</sub> is the 25 percentile, and Q<sub>3</sub> is the 75 percentile. High is the highest price paid for the article and low the lowest price.

**Facts Disclosed by the Data**

It will be seen that the range in price on each item is very wide, even when one discounts the variations in quality. In some cases the high-

**SUMMARY OF COST DATA**

School Supply Purchases in Alameda County		Total	Ave.	Median	Q <sub>1</sub>	Q <sub>3</sub>	High	Low
Item	Quantity	\$3,148.20	\$ .42	\$ .76	\$ .57	\$ .90	\$ 1.00	\$ .29
Chalk	7,557 gr.	2.778 gr.	2.51	5.54	4.33	6.10	10.50	1.24
Pencils		3,653 doz.	.22	.52	.36	.775	1.60	.205
Penholders		3,600 1/2 gr.	.62	1.24	1.04	1.46	2.50	.52
Ink	122 qts.	134.23	1.10	1.22	1.11	1.43	1.90	.375
Foilescap paper	1,580 rms.	2,441.05	1.77	3.13	2.54	3.43	4.50	1.44
Cut news	13,458 lbs.	851.72	.063	.084	.074	.107	.165	.042
Draw. paper, white, 9x12	4,254 rms.	3,083.40	.72	1.67	1.19	2.38	3.00	.52
Crayons (8 colors), boxes	2,775 doz.	1,623.33	.59	1.04	.71	1.27	1.20	.563
Paste	3,088 1/2 qts.	1,150.24	.37	1.05	.83	1.29	1.70	.31 1/4
Rulers	2,710 1/2 doz.	601.59	.23	.755	.40	1.21	1.80	.19
Pencil sharpeners	427	830.47	1.94	1.50	1.15	3.17	5.00	.70
Spelling blanks	472 doz.	426.30	.90	1.04	.60	1.75	1.75	.40
Composition books	10,146 doz.	3,306.51	.325	1.03	.49	1.25	1.80	.175
Blackboard erasers	988 doz.	1,218.65	1.23	2.19	1.77	3.19	4.00	.90
Footballs	150	782.74	5.22	6.04	4.83	6.12	10.00	4.00
Bats, indoor	658	373.92	.57	.61	.54	.75	1.25	.50
Basketballs	528	3,298.15	6.23	7.25	6.00	9.10	10.00	4.00
Paper towels	1,059 cases	9,822.10	9.57	12.37	8.90	14.33	25.00	6.25
Liquid soap	700 gal.	459.20	.65	1.00	.59	1.27	2.50	.47
Brooms	188	139.10	.74	1.04	.84	1.17	2.00	.48
Wastebaskets	373	582.20	1.56	1.92	1.21	2.29	2.60	.63
Coal	1,334 tons	15,084.85	11.30	13.96	11.26	16.23	20.00	10.50
White-lead paint	14,936 lbs.	1,698.21	11.37	11.97	11.10	12.12	15.00	10.50

est price is from five to ten times the lowest price.

The median is higher than the average price in all but one case, due to the lowering of the mean price by large quantity purchases. In chalk, for example, the average price was 42 cents, but 50 per cent of the purchasers paid 76 cents or more, while 25 per cent paid 90 cents or more a gross.

When the average price paid by the cities was compared with the average price paid by the remainder of the county the results were as follows:

Item	Cities	Outside
Crayons (8 colors), per doz. boxes	\$ .573	\$ .93
Paste, per qt.	.34	.97
Rulers, per doz.	.19	.45
Drawing paper, per ream	.69	1.25
Pens, per gross	.52	1.13
Blackboard erasers, per doz.	1.03	1.90

A few cases will be cited to show that many prices were charged for identical items.

A standard brand of paper towels sold at eleven different prices, ranging from \$7.00 to \$14.50 a case.

A widely used brand of crayons was sold at seven different prices, from \$0.60 to \$1.20 a dozen boxes (8 colors).

A nationally used trade-marked kind of pens cost one district \$0.85 a gross, while another district paid \$1.50 a gross for the same pens.

One firm charged seven separate prices for a well-known brand of pencils.

A widely used chalk brought six different prices; the lowest, \$0.42; the highest, \$0.90 a box.

**Pooled Buying—The County Unit**

The remedy for the preceding conditions seems to be in purchasing for a larger unit—the county. This actually has been done in several cases with gratifying results. Utah has been operating under the county unit for several years. Superintendent Patterson of Weber county of the state shows the following partial list of results of consolidation on prices for supplies.

	Before	After
Erasers, per gross	\$4.50	\$3.00
Pens, No. 556, per gross	.85	.50
Writing paper, per ream	3.00	1.60
Composition notebooks, per gross	6.00	3.75
Lead pencils, per gross	2.55	1.85

Superintendent Charles Schwoerer of the Calaveras county schools (California) persuaded all the districts of this county (there are no cities of any size) to pool their orders. While the complete list of prices and descriptions is interesting, only a few can be shown here.

Quantity	Article	Price per unit quant.	Reg. price to schools by same firm
34 reams	Blotters	\$ .50	\$1.00
15 doz. boxes	Crayola No. 8	.75	1.20
91 boxes	Chalk, dustless	.60	1.00
8 doz.	Penholders	.38	.60
82 reams	Legal cap	2.00	3.00
22 pts.	Library paste	.65	.90
84 boxes	Water-color paints	.35	.50

The orders were packed separately and shipped directly to each district ordering.

The savings in this county averaged about 33 per cent, which represents a substantial help to the small rural districts with their scanty resources.

**The Purchasing Agent—True Economy**

It would seem logical with a large unit to

purchasing agent for the Oakland schools. If a firm wished to supply paste for the ensuing year, he would ask for a dozen sample jars, send them out to certain teachers, sans labels, and then call for a report on that paste at the end of a certain time. Again in selecting ink, the samples were numbered and the writing teachers called in and given an afternoon to select their choice by number, the labels all having been removed. Now the teachers knew that they had to live with that ink for a year, so they chose carefully.

Other examples might easily be cited, but these will serve to illustrate the point. Good purchasing agents with the idea of true economy could save the taxpayers of the nation many millions of dollars annually.

Another problem which a good purchasing agent can work out is that of standardizing maximum quantities of supplies, thus eliminating much waste. Oakland has now worked out a set of standards for elementary and high schools which are generous but definite and which seem to be working quite satisfactorily. A number of different bases are used; some supplies are apportioned on a school basis, some on a teacher basis, and some on a pupil basis. For subjects like cooking, art, manual arts, the standards are worked out by subjects. The quantities allowed do not stint or hinder the work, since they are worked out by committees of teachers and principals.

**Recommendations**

These recommendations made as a result of the study of Alameda county, California, will apply to most of the other states as well as California. It is recommended:

1. That the county unit system of school administration, or that part of it which provides for pooled buying of school supplies, be adopted.

2. That the legislature adopt a statute governing the purchase of school supplies which shall provide for:

A. A special purchasing agent for school supplies in the office of the county superintendent of schools. In counties too small to justify such agent, the county superintendent shall serve.

B. A final date for submitting the list of needed supplies (by principals and superintendents) annually.

C. A method of payment which would eliminate delay for the contractor.

D. Bids to be submitted and contracts to be awarded item by item, not "in toto."

E. Samples to be furnished on each item bid upon.



THE EXECUTIVE OFFICES OF THE UNITED STATES FOR THE SUMMER OF 1927.

THE RAPID CITY HIGH SCHOOL, RAPID CITY, S. DAK.  
The Rapid City High School is being used during the present summer as the executive headquarters of President Coolidge during his stay in the Black Hills of South Dakota. The entire building has been turned over to the President for the use of his secretaries, telegraphers, stenographers, and secret service men. Newspaper correspondents, etc., will also make use of the building.



# THE AMERICAN School Board Journal

WM. GEO. BRUCE } EDITORS  
WM. C. BRUCE }

## EDITORIAL

### A CELEBRATED CASE IN SCHOOL ADMINISTRATION

Several American cities have thus far this year distinguished themselves by removing the superintendent of schools without submitting to the public an adequate excuse for so doing. In every instance there were influences and forces at work which ignored the accepted methods and higher ethics which should govern school administrative effort.

In approaching a discussion of the subject with the desire to draw conclusions that shall be suggestive and in the end profitable, it must be admitted that a board of education is entirely within its rights when it engages in the hiring and firing of professional workers for the good of the schools. It cannot allow the fortunes of the individual to interfere with the exercise of a sacred duty—namely, the duty to promote the physical, mental, and moral welfare of the child.

Thus, the modern board of education is a definite force in determining upon America's system of popular education. The most vital and delicate duty in the entire range of school-administrative effort lies in the selection and dismissal of the chief executive who shall be entrusted with the direction of a school system. To fail here means to fail in the most important task which befalls the administrators. To succeed here means to secure the right man in the first place and hold him to his job as long as he serves well.

A board of education that is permitted to go about its task in a deliberate and unhampered way will usually reach a correct solution in the selection or dismissal of a school superintendent. Where such a body, however, is harassed by political turmoil and an army of busybodies the result is less promising. In that case the board of education usually becomes a prey to prejudice and sinister influences.

Among the cases that have come to surface thus far this year, the Chicago superintendency squabble stands out preeminent. In fact, it is so phenomenal and exceptional as to deserve the special concern of the school public of the country.

Briefly put, it is this: A few years ago Chicago looked about for a capable school superintendent, found him, and hired him in the person of William McAndrew, who had been an associate superintendent in New York City. This was accomplished by a board of education appointed by Mayor Dever. When the latter appeared as a candidate for reelection he was opposed by a man named Thompson, who in his campaign speeches held that the appointment of McAndrew was all wrong.

Thompson charged that McAndrew was a stool pigeon for King George of England, and that he had introduced un-American histories in the schools, and he promised the voters of Chicago that he, if elected, would run the offending superintendent out of town. The fact that

the charges were pure political buncombe did not change the situation. McAndrew must go. His contract entitled him to remain another year. But, why not buy him off? A school superintendent's standards are no higher than a Chicago mayor's standards. But, McAndrew would not sell out. He concluded to stick to his job.

The schools are danger spots for a mayor. They attract the sappiest sort of politics and the management is a perennial exhibition of juvenile rages in the administration of the education of the school children. Sane parents must wonder why men and women in charge of the schools so frequently lack the discipline and mental order of a fairly well-behaved elementary classroom.

So says the Chicago Tribune, and then continues: As the present controversy affects Supt. McAndrew he naturally has all the best of it, being in it unwillingly and with considerable sense of its juvenile aspects. If gentlemen in and out of the city council make fools of themselves he will not starve to death. They'll probably get him in the end. No superintendent with any regard for his standing as an educator could win out in such a scrap as this, but he'll merely go with an enhanced reputation to another and better place and Chicago will retain a damaged reputation for its schools.

Thus is pictured the most celebrated superintendency case that has thus far been enacted in the history of American school administration. It illustrates how awkwardly a school system may become wedged in a turmoil in which party prestige and political aggrandizement play a leading role, and where a board of education and the entire school system are placed at the mercy of a political boss and a party dictator. Surely, the example set by Chicago will teach other communities of this country what to avoid and, in fact, what not to do in school administrative affairs.

### SOURCES OF TAXATION AND SCHOOL SUPPORT

The average school administrator is not inclined to bother himself very much with methods of or theories in taxation. He wants enough money to run his schools successfully and is not particularly concerned as to what system is employed in raising tax moneys. Under the present property tax system the contention is a matter of rates on the one hand and the size of the public budget on the other. If the school administrator wants a larger budget, the taxpayer wants a lower rate.

There are instances, however, where the school executives are called upon to give an expression on the subject of taxation, and more particularly as to whether new courses shall be sought or whether present sources shall be drawn upon for a higher tribute. And, if new sources are to be tapped, where these are to be found.

And here we find that the schoolman who is wholly inexperienced in tax matters will ignore the accepted principles in taxation and give way to the most wild and untried schemes. The legislator who is called upon to find new sources of revenue may ask Mr. School-Officer just where these may be located. It is then that he must be prepared to give the right answer or remain silent. At least, he must not recommend the wrong thing.

We have seen prominent schoolmen during the past year urge a tax on amusements, on cigarettes and what not, and at the same time oppose the income tax system which has stood the test of time and is today the most equitable and serviceable tax instrument known to the civilized world.

The student of taxation knows that many new tax schemes may be proposed and that with every new proposal will rise the question as to whether it is equitable, workable, and remunerative. To enact a new tax law is one thing, and to administer the same is quite another. It follows here that a tax instrument must not only be equitable and fair, but the cost of ad-

ministration must be consistent with the tax yield.

Thus, many new tax schemes die unborn. They go before the legislators and are killed in committee. They may look promising when first proposed, but gradually, as their shortcomings are revealed, they fade into nothing.

It is not our purpose to contend that every school official must be a tax expert, but the underlying principle of taxation and the relative difference between the several accepted tax schemes should be within his knowledge. At any rate, without such knowledge he ought not to venture to commit himself in favor of the visionary and impractical, and against the sound and sensible.

### THE EPIDEMIC OF SCHOOL STRIKES

School strikes are not new. They have in the years past broken out in various sections of the country. But, they have invariably been nipped in the bud by prompt and firm action on the part of the school authorities. A proper conception of disciplinary order, and the interests of the pupil as the first and foremost consideration, has usually averted an embarrassing situation.

This year, however, there have been dozens of school strikes in which pupils have recorded their protest against some action taken by the board of education. The school strike engaged in at Superior, Wisconsin, was by far the most disastrous and dangerous, as well as the most dramatic, that has ever been staged in any community in the United States. It was from beginning to end a comedy of errors that resulted in aspects so serious as to strike the very fundamentals of the system of education that must make for American citizenship.

Those entrusted with authority at Superior dismally failed in their task when the emergency arose, with the result that a thousand school children were allowed to loaf for a month about the streets and defy the disciplinary rules of the school system. The school authorities lost their heads in the incipient stages of the strike and permitted the same to assume a proportion and intensity that went beyond their own control.

The lesson which this unfortunate strike affords should be heeded by school authorities throughout the country. Whatever the equities of the situation were, the right or wrong of dismissing a teacher, it was clear that the children ought not to become the judges of the case in hand. The children must remain at school where they belong. Obedience is the cardinal principle of discipline and order.

If the pupils believed that they had the right of protest in a schoolboard action, they sacrificed that right by resorting to disobedience. If stability and peace rest upon law and order, then it also follows that the school, next to the home, is the first place where the youth of the land must be taught respect for such law and order. This is a primary consideration. But, it was the first and unalterable duty of the school-board president and the superintendent, the principal and the aggrieved teacher, the mayor and the parents, to firmly and unequivocally order the children back to school.

What has really happened to cause these school strikes? The board of education dropped a teacher, principal, or superintendent, from the list of appointees for the ensuing year. Immediately a group of pupils goes on a strike, engages in street parades, raises all the noise and hurrah that go with hoodlumism, and proposes to tell the school authorities where to get off at.

A board of education may not always do the wise thing. In fact, it may at times act very unwisely. But, the question is whether the

school board or the pupils are running the schools. When a school strike has been engaged in, the pupils, not the school board, are on trial.

The observance of obedience is primary and fundamental, hence the voice of protest, as far as this applies to the pupils, will gain credence only after they have placed themselves upon an orderly and legitimate basis. The pupils cannot consistently demand an orderly procedure if they themselves set the pace in disorderly conduct. The solution must be found in the calm and quiet of deliberation and in the light of justice and equity to all concerned.

#### GRANTING PUBLIC HEARINGS IN SCHOOL-MASTER DISMISSALS

Most of the ruptures which have taken place in school circles thus far this year have been caused by the dropping of teachers, principals, or superintendents from the roll of school workers. In some instances, the trouble was aggravated because the board of education refused to grant hearings to the aggrieved parties, or to submit a public explanation of its action.

This brings up the question of public hearings. While the press and the citizenship may welcome them, the interested parties usually abhor them. They invariably lead to criminalization and recrimination, provide sensational reading matter for the newspapers, and finally have an evil effect upon the disciplinary calm of the school system and the pupil constituency as a whole. They may right minor wrongs, but in the end do more harm than good.

A board of education is clearly within its rights to remove a teacher, principal, or superintendent for the good of the service. No one disputes that. If the removal is clearly in the interest of the school system, the action must stand.

If, however, the aggrieved party asks for a public or private hearing, such hearing cannot consistently be denied. Differences between school executives and the staff are usually best adjusted in private conference, but if a public hearing is demanded it is usually granted. No progressive and fair-minded board of education would deny such a request. If the schoolmaster can afford to have the charges against him aired in public, the board of education can take the same chances. The schoolmaster has his professional prestige and future at stake, which may mean much to him, while the board of education is called upon to demonstrate its ability to deal with fairness and justice. It ought to be willing to stand that test at all times.

But, this by no means argues that public hearings in which the character and efficiency of a superintendent, principal or teacher, come into question, are either desirable or efficacious. Only when he has been subjected to a gross and glaring injustice can the schoolmaster afford to defy the authorities and chance the consequences of a public hearing. No man wants to remain very long, nor can he be at his best or live happily, where he is not wanted. He who removes himself gracefully from an unpleasant situation usually fares best.

But, in discussing the question of hearings and their futility, it is well to bear in mind the causes that impel such hearings, or rather to contemplate such methods and procedures as will obviate them. And that brings us directly to the consideration involved in dismissals from the school service, which imply the exercise of the highest equity and justice in all matters affecting the retention or removal of school workers.

#### A PRINCIPAL'S BUDGET FOR SCHOOL SUPPLIES

The modern school budget anticipates the various school cost items with reasonable accuracy. The larger costs, such as salaries and general administrative figures, are more readily fixed than the various departmental items. The

man, however, in charge of building up the budget delves into the detail supply items not only to determine the kind and quality, but also as to quantity and the matter of distribution.

In observing the rules of judicious school housekeeping, the individual schoolhouse becomes the unit of distribution and the principal of the school the determining factor. He must not only know what is needed, but also guide the distribution with a due regard for the elements of efficiency and economy. He orders no more, in the way of supplies, than he can advantageously use in his school, and is careful that no wasteful accumulation of articles is stored away to be forgotten and to become the prey of dust and decay.

In recent years business managers of school systems, or those to whom the function of the purchase and distribution of school supplies is entrusted, have earned their salaries several times in one year by guarding against the wasteful use and careless storing of school supplies.

Thus, administrators of supply departments of school systems, be they business managers, secretaries, or clerks, have devised blanks whereby principals are enabled to note their needs for a given period. A standard list of supplies, together with the cost of each item, is provided. The principal's budget becomes an important factor. It bases the annual order upon the amounts and quantities used during the previous year and thereby serves as the starting point in building up the school budget as a whole.

M. S. Spears, business manager of the Evans-

ville, Indiana, schools, recently worked out a plan whereby the supply items are brought under a definite system and control. He eliminates the monthly requisition method, and places all orders upon a year's supply. This does not prevent the principal from ordering anything not included in standard lists that he may need at any time during the year. But, nothing will be provided without the principal's order.

Judicious school housekeeping contemplates not only instructional, janitors', and engineers' supplies, but also repair and replacement of instructional apparatus, of furniture and other equipment. It contemplates everything that is subject to wear and tear, and requires rehabilitation or reinforcement in order to keep the school plant upon an efficient operating basis. Mr. Spears tells the principal that in order "to make your budget serve your school in the best possible manner, you must secure the earnest cooperation of every teacher and janitor. This is absolutely necessary in order to allow you to order just the right amount of everything."

This plan recognizes the school principal as a factor in budget building, and has for its purpose a systematic approach to the matter of supplies and equipment as legitimate items in the list of school costs.

#### THE FLAG POLE

The flag pole stands so soldier-straight,  
And points up to the sky,  
The reason for his pride is great,—  
He holds the flag on high.

Whene'er a breeze flings out its folds,  
He trembles in his pride,  
To think that for that flag he holds,  
Our heroes fought and died.

—T. S. Hartley.



A PROJECT THAT DESERVES SUPPORT.  
Miss Olive Jones of New York leads a national movement for homes for aged teachers.

## The Relation of the Business Manager to His Board and His City<sup>1</sup>

Mr. John E. Byrnes, Business Manager, Chicago Board of Education

When the program committee invited me to say something on a subject in connection with the business administration of public schools, I thought the matter over for a while and I venture to suggest the theme, "*The Relation of the Business Manager to His Board and His City.*" One might prepare a first-class paper under this heading; the subject might vary from taxation or sanitation to that of a taxpayer who telephones a complaint to the business manager that a certain school building is "smoking."

Or, one might take the subject in another aspect and lay emphasis on the powers and duties of the business manager of the Chicago Board of Education, who is by law the general business executive of the board. To him is given charge and control of the business department as well as whatever powers remain unassigned to the education and law departments. His express statutory powers are over the making of contracts and leases, the condemnation of sites, the construction and repair of buildings; all purchases, the operation and maintenance of buildings and grounds and the direction of employees engaged in such service.

The particular phase of the subject, however, that I have chosen to discuss is neither of these; it is: *The handling of the business affairs of the board of education in such a manner that taxpayers may, when coming in contact with the administration of the school system, be imbued with a spirit of confidence toward the institution.*

### The Human Element in School Government

By the human element I mean an honest and efficient conduct of the affairs of the people's most important enterprise—and the necessity of furnishing the people with accurate information about this business which they, themselves, own. If by "business management" we mean this, then we must keep in mind that our institutions were founded not for things but for people. In particular does this apply to the institution of public instruction. Such was the idea in the minds and hearts of the builders of the American nation. It is this faith that has made us a great nation. And it will be the basis from which to test our ultimate success or failure.

I have just called attention to the necessity for *honest and efficient* management in public affairs, but let me add that, it is not always possible to conduct school affairs with the same high efficiency demanded in the business world. Let us see why it may not be possible to operate the management of school affairs as efficiently as institutions transacting business for the purposes of material gain. The citizens of Chicago elect a mayor, for four years, to represent them at the seat of local government. The mayor appoints, subject to the approval of the city council, a board of education, consisting of eleven members, by which board the business manager is appointed for a term of four years. By this complicated and interlocking arrangement the business management of the Chicago schools is delegated to the business manager who becomes the coordinator between the public and the executive head of the City of Chicago.

Every business manager would do well to remind himself occasionally that, while the management of public institutions may fall behind the standards of efficiency of private institutions engaged for personal gain, it is a part of the price that must be paid for the establishment of free, republican institutions of government.

<sup>1</sup>An address at the Convention of National Association of Public-School Business Officials, Philadelphia, May 19, 1927.

He should remember that our public schools are established for human welfare and not for private gain. And further, that in coming in contact with people who rightfully exercise their influence in the cause of human endeavor, no two persons are exactly alike and that it is necessary to have and at the same time to exercise a reasonable amount of patience and common sense.

### Harmony in Divided Responsibility

The Chicago school system is one of divided responsibility, which nowadays is characteristic of many of the larger cities; the superintendent of schools has complete authority over educational problems and the administrative phases thereof; the business manager has under his direction the control of the business policy and its application to the various branches of the system. Each executive is responsible to the school board.

We should feel conscious that the business department was created and exists for the purpose of relieving the board of education of the responsibility of business detail, to provide efficient management of the school affairs and to serve the best interests of the people; and that it exists chiefly to assist in the important task of educating our children. To properly perform the task of educating our boys and girls the closest harmony and sympathetic understanding must be established between the business and educational managements. School buildings are erected for the use of the children—they belong to the community. The work of repairs and of heating and cleaning them is for the accepted purpose of making them more useful. No business manager who has any proper right to be a business executive of an institution of public instruction, will ever overlook these fundamental principles.

### Survey of Business Methods

Doubtless it will interest you to know that the situation in Chicago presents a financial problem in that the business policy must confine itself to a "cash basis" for the construction of school buildings and additions. We do not have the privilege of resorting to a bond issue for relief when the building fund becomes exhausted. Our business department has concerned itself with economies in the erection, maintenance, and operation of the school plant. Two years ago, for example, the board of education discontinued the requirement of surety bonds which were formerly required to guarantee the terms and provisions of building contracts. Today, we maintain a bureau which provides a similar type of service to that furnished by corporate bonding companies which has resulted in the cost of construction having been reduced by approximately \$200,000 per annum.

Another economy: Requisitions for school-plant supplies originating at the hands of school custodians are rechecked and revised; investigation is made by the central office as to the probable necessity of items requisitioned. The result has been that we now operate the entire number of buildings, including 68 new additions at a cost only slightly greater than the total cost of operation prior to the opening of the new buildings. And another: A system of control of board-of-education property was instituted about two years ago. First, we arrived at an exact inventory of all movable furniture and equipment which does not form a necessary or integral part of the buildings. This done, we designated at each school or other place

where equipment is in use, a person who serves as "property officer" and who is held accountable for any loss or destruction of property other than customary wear and tear. At the end of each school year he reports to the central offices the amounts on hand, the number added, disposed of, or transferred. When equipment of a kind not in use is required elsewhere, it is transferred to places where needed. We are then able to tell at a glance by a ready-reference record, the sum total of any given item of such property in use throughout the entire school system, and where located.

From time to time an examination, or survey, is made of our business methods with the result that we often are able to effect substantial economies by careful and intelligent study of the recommendations offered for our consideration.

In a recent discussion of educational problems, Mrs. W. S. Hefferan, chairman of the committee on school administration of the board of education, said: "Our educational requirements have changed and there is plenty of evidence that they are constantly changing; that our educational system is in a constantly fluent and elastic state, and that it changes as steadily in its organization as do the agricultural, commercial, and manufacturing and kindred industries of the country. \* \* \* More than once I have applied suspended judgment to problems of educational changes coming before me for my approval."

Although these remarks were made in connection with educational policy, we find in them the significant voice of civilization coming out of the homes and communities. This changing civilization requires revision and advancement and improvement in things we do and how we do them. That voice is ever heard wherever human beings associate in any great numbers and more particularly in larger cities. It is, therefore, necessary, if we are to note the progress round about us, and if we are to keep pace with the requirements of the age in which we live, we must occasionally take "inventory" whether it be by means of research and survey, examination of our business methods from impartial sources, by personal observation or by honest constructive criticism. This will furnish the board from disinterested sources, with information and data that will enable it to make administrative readjustments from time to time as necessity requires. It also provides opportunity to adjust and change business methods and office routine with constantly changing educational policies.

### The Building Program

My city—which some day is destined to be the world's capital—has 457 public-school buildings exclusive of special schools. In addition to 68 new buildings erected during the past three years, which I have just mentioned, we have 30 additional buildings under construction and in the process of planning. This is greater progress than has been made in any like period since the City of Chicago was a little village on the banks of Lake Michigan. To the men and women members of the board who have given of their time and talent without material reward, who have been notably self-sacrificing in their devotion to the cause of human welfare, Chicago owes a debt of gratitude which can never be repaid.

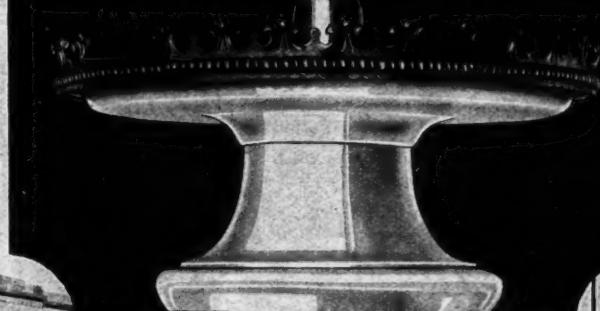
This recent program of intensive building activity has involved an expenditure of nearly \$60,000,000, chargeable to current revenues. A considerable portion of this sum has been used to acquire improved properties to obtain sites in the required areas. The program was necessitated because of conditions similar to those experienced elsewhere after the great conflict of 1917 and 1918. During these years, and for

(Concluded on Page 148)

GuthLite is the super-illuminator for schools. Scientifically designed to give shadowless ceiling illumination and shadowless illumination on the working plane.

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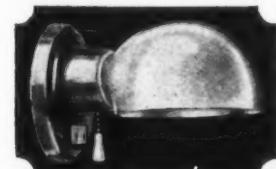
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## SCHOOL LAW

### Schools and School Districts

The organization of a common-school district is held not invalidated by the election of six instead of three directors (Missouri revised statutes of 1919, §§ 11201, 11210, 11213).—State ex. inf. Mansur ex rel. Fowler v. McKown, 290 Southwestern reporter, 123, Mo.

Repeated unsuccessful attempts of a city to attach territory to a city school district do not establish bad faith or unlawful conspiracy nor prevent further endeavors under a later statute (Kansas laws of 1925, c. 222).—State v. Board of Education of City of Humboldt, 253 Pacific reporter, 251, 122 Kansas, 701.

If the proceedings for the condemnation of a school district are honestly conceived and conducted, and material portions of the statute are complied with, informalities will not invalidate the organization.—State ex. inf. Mansur ex rel. Fowler v. McKown, 290 Southwestern reporter, 123, Mo.

Voting on the formation of a common-school district from parts of other districts need not be separate in the various parts (Missouri revised statutes of 1919, § 11201, 11253).—State ex. inf. Mansur ex rel. Fowler v. McKown, 290 Southwestern reporter, 123, Mo.

An election to organize a township high-school district is a special election, no matter when held.—People v. Buesinger, 155 Northeastern reporter, 473, Ill.

A notice of election for the organization of a township high-school district is held defective as to the description of territory, making the election void (School law, § 85).—People v. Buesinger, 155 Northeastern reporter, 473, Ill.

The voters upon a proposition of an organization of township high-school district are held not estopped from questioning the legality of an organization by participation in the election.—People v. Buesinger, 155 Northeastern reporter, 473, Ill.

### School District Government

Under a statute providing that the board should appoint the county superintendent for a term not exceeding four years, an appointment for two years was valid (Acts of 1920, c. 36, § 10).—Caudill v. Bowen, 291 Southwestern reporter 44, 218 Ky. 207.

Where the county superintendent's term expired in 1923, her successor had to be elected in 1923, and only members of the board then in office had power to elect (Kentucky acts of 1920, c. 36, § 10; acts of 1922, c. 39; acts of 1924, c. 52).—Caudill v. Bowen, 291 Southwestern reporter 44, 218 Ky. 207.

One reappointed county superintendent for four years under a statute limiting the term to four years is held entitled to office during the term of appointment, notwithstanding an amended statute limiting the term to two years (Kentucky acts of 1920, c. 36, § 10; acts of 1924, c. 52).—Caudill v. Bowen, 291 Southwestern reporter 44, 218 Ky. 207.

### School District Property

A bond by a compensated surety in a statutory amount for the erection of a school building, though not complying with the statute, is subject to its provisions (Ohio general code, §§ 2365—1 to 2365—4).—American Guaranty Co. v. Cliff Wood, Coal & Supply Co., 155 Northeastern reporter 127, Ohio.

Material men and subcontractors may recover on a bond for the erection of a public school though not named therein (Ohio general code, §§ 2365—1 to 2365—4).—American Guaranty Co. v. Cliff Wood, Coal & Supply Co., 155 Northeastern reporter 127, Ohio.

A bid bond by a surety for the construction of a school building is to be construed with a final bond for securing the performance of the contract.—American Guaranty Co. v. Cliff Wood, Coal & Supply Co., 155 Northeastern reporter 127, Ohio.

A plaintiff, furnishing to materialman finished steel furnished to a contractor and used in constructing a school building, is held entitled to sue the surety on a contractor's bond (Ohio general code, §§ 2365—1 to 2365—4).—American Guaranty Co. v. Cincinnati Iron & Steel Co., 155 Northeastern reporter 389, Ohio.

The surety on a school contractor's bond is held not released as to materialman because the school trustees failed to retain the required percentage of the contract price until the completion of the build-

ing.—U. S. Fidelity & Guaranty Co. v. Cicero Smith Lumber Co., 290 Southwestern reporter 307, Tex. Civ. App.

Under a contractor's bond providing that alterations in contract should not release the principal or sureties, sureties were estopped to claim release on such ground.—U. S. Fidelity & Guaranty Co. v. Cicero Smith Lumber Co., 290 Southwestern reporter 307, Tex. Civ. App.

### School District Taxation

Directors borrowing money on their own credit in excess of the district's power to borrow could not recover therefor against the district, though the money was used to complete the school building.—(Missouri constitution, art. 10, § 12).—Strickler v. consolidated School Dist. No. 1 of Knox county, 291 Southwestern reporter 136, Mo.

A constitutional limitation on the district's borrowing power prevented the district's binding itself to repay the loan of the directors (Missouri constitution, art. 10, § 12).—Strickler v. Consolidated School Dist. No. 1 of Knox county, 291 Southwestern reporter 136, Mo.

School directors, advancing money in excess of the district's borrowing power to complete a school, could not have the title vested in them to part for which they paid (Missouri constitution, art. 10, § 12).—Strickler v. Consolidated School Dist. No. 1 of Knox county, 291 Southwestern reporter 136, Mo.

Directors advancing money to complete a schoolhouse, where the district's borrowing power has been exhausted, are held mere volunteers.—Strickler v. Consolidated School Dist. of Knox county, 291 Southwestern reporter 136, Mo.

### Teachers

A teacher is held not entitled to recover for a breach of employment contract, having had fair hearing before the school board and a final adverse decision on an appeal to the state superintendent (Code of 1924, §§ 4237, 4298, 4302).—Courtright v. Consolidated Independent School Dist. of Mapleton, 212 Northwestern reporter 368, Iowa.

A school board can only dismiss a teacher under a valid employment contract by compliance with the statutory requirements (Iowa code of 1924, § 4237).—Courtright v. Consolidated Independent School Dist. of Mapleton, 212 Northwestern reporter 368, Iowa.

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## WASHINGTON CORRESPONDENCE

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Education

### District of Columbia School Budget for 1928

The board of education has presented to the district commissioners its budget for the school year 1928, which calls for an increase of \$3,433,928 over that of the present year. The total requested for the district schools is \$15,431,943. The estimate goes to the district commissioners for their approval or revision, later going to the office of the director of the budget for approval or revision, and finally to Congress for whatever action it decides to take. The school board's estimates are usually trimmed by the district commissioners, and again by the director of the budget. Occasionally Congress allows money for items removed by either one of these two agencies, but as a rule, it provides the exact amount recommended by the director of the budget. Practically two thirds of the increase requested is for the purpose of purchasing school sites and buildings, that is, in addition to the amount for those purposes over that of the present year.

In making its estimates the board has been guided partly by ten recommendations of a recent public council of the finance committee. These recommendations included increased vocational facilities, higher pay for summer-school teachers, additional clerical assistance for the supervising force, the replacing of obsolete furniture, and provisions for better fire protection.

During the year considerable agitation has been in evidence at meetings of parent-teacher associations and similar organizations for the general improvement and beautifying of school grounds. The schoolyards and grounds of the district schools are decidedly lacking in these points, particularly when compared with the public parks in the city. Recognizing the justice of the demand from these associations the board has requested a special appropriation for this purpose.

### Married Teachers

Considerable agitation has again arisen in the

District of Columbia over the employment of married women in the public-school system. At present married women are employed and the board of education has well-established rules granting motherhood leave of absence to married teachers. Objection had been raised by citizens of the district and the board of education, in answer to public requests, held a recent conference with representatives of civic-trade, parent-teacher, and citizens' associations. No definite decision was reached. Several of the representatives of these associations advocated dropping from the teaching staff all married women whose husbands were working. Advocates of the continued employment of married women raised the point that the school board could not debar them from teaching without specific authority from Congress. This, the superintendent of schools declared in his opinion, was unnecessary.

In calling the public meeting the board of education made it clear that the question of the employment of married women was not being reopened by the board itself but that it was raised by the citizens' organizations. The board declared itself as ready to make changes in its present policy only when it was clear that public opinion desired it. It, therefore, asked the various organizations, after the public meeting, to discuss and express themselves on several questions prepared by it. Among them the principal ones were the following:

Should married women be admitted to the normal schools?

Should students in the normal school, who marry during their course, be permitted to finish?

Should married women be declared not eligible to take examinations for teaching preparations?

Should women teachers who marry during their service be required to resign?

If regulations are adopted hereafter disqualifying the employment of married women, should those now in service be permitted to continue, or be required to resign?

### State Education Associations

In each state in the union and in the District of Columbia, Alaska and Hawaii, is a state education association or a state teachers' association composed of persons actively engaged in general school-work. There are also minor state associations, composed of persons in some particular phase of education as superintendents' associations, secondary principals' associations, etc.

The 51 state associations all are affiliated with the National Education Association. Thirty-four of them employ full-time executive secretaries. Forty-one hold annual meetings at one center, the others hold annual sectional meetings. Thirty-six of them publish regular teachers' journals, usually a monthly and devoted both to the welfare of the teacher and to professional matters.

In the 48 state associations and the association of the District of Columbia, there are approximately 613,500 members. This is 69 per cent of the entire public-school teaching force. The actual percentage of public-school teachers who are members of these associations is somewhat less than 69 as the total enrollment given above contains many teachers and school officials not in public schools.

The 34 paid executive secretaries are all persons with professional school experience. Some are elected, and others appointed, by the executive committee of the state association. The salaries range from \$2,000 to \$10,000 a year.

### Promotion in the District School System

Henry W. Draper, principal of the Langley junior high school, has been appointed supervising principal of the first division to succeed the late B. W. Murch. Mr. Draper is a graduate of the Wilson Normal School of the District of Columbia, and of George Washington University, and holds also an M.A. degree from the latter institution. He has been in the Washington School System in various positions as a teacher and principal since 1895. He was appointed administrative principal of the Henry Polk school in 1915, and principal of the Langley Junior High School in 1923.

### Bureau of Standards Publications

The U. S. Bureau of Standards has issued recently several bulletins of interest to school authorities. The names of a few of these are given below. The "Standards Yearbook" contains much information of special value to superintendents and school boards erecting buildings. The bulletin "Soundproofing of Apartment Houses" applies as well to soundproofing of schoolrooms.

Soundproofing of Apartment Houses.

Standards Yearbook.

Technical News Bulletin.

Compressive Strength and Deformation of Structural Steel and Cast-Iron Shapes.

Bases for Specification and Building-Code Requirements for Building Brick.

(Concluded on Page 76)



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ARCHITECTS: MARCUS R. BURROWS AND FRANK KURICH, JR., DETROIT

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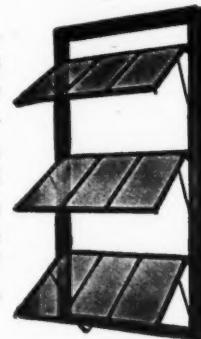
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The Donovan Window is easy to operate. Move the bottom sash, and upper sashes open or close simultaneously — or release a catch and the bottom sash operates independently, leaving the upper sash in any desired position. Chains, cords and window poles are done away with, as is also the psychological objection of the teacher to give the class the benefit of fresh air when windows are difficult to open or close.



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(Concluded from Page 74)  
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Determination of the Fiber Composition of Roofing Felts.  
The Bureau of Standards and its Work on Sand-lime Bricks.

### Carbonation of Lime Plaster

The U. S. Bureau of Standards is carrying out at the present time certain tests in the carbonation of lime plaster of interest to those charged with the oversight of the erection of buildings.

One of the first facts to be recognized concerning the properties of lime is that its combination with the carbon dioxide of the air is the main reaction which leads to the formation of the bonding materials of lime, mortar and plaster. However, definite facts concerning the recarbonation process have not been available and an investigation has therefore been undertaken at the bureau to obtain more information on this subject. Three different variables have been given special consideration.

1. Type of mortar. Four different types of lime were used in making up 2-inch cubes; namely, a high-calcium quicklime, a dolomitic quicklime, a high-calcium hydrated lime, and a dolomitic hydrated lime.

2. The richness of mortar. Mortar containing three different proportions of lime and sand was made from each of the four types of lime mentioned above. The richest mortar contained 1 part of hydrated lime to each part of sand by weight; another, 1 part of hydrated lime to 3 parts of sand; and the leanest mix contained 1 part of hydrated lime to 9 parts of sand.

3. The different surface coating of the mortar. A sufficiently large quantity was made up of each of the 12 mixes mentioned above, so that 3 identical cubes, with surfaces as follows, could be made from each mortar: (a) Uncoated; (b) one-eighth inch of the usual white finish coat, and (c) an oil paint. At the end of definite increments of time  $\frac{1}{4}$ -inch layers were removed from each of the cubes and analyzed. The results obtained to date indicate the following:

1. Richness of the mortar. In the 1:1 mortar there was no appreciable amount of carbon dioxide inside of the second  $\frac{1}{4}$ -inch layer after 120 days' aging, while at the end of the same length of time a relatively large percentage of carbon dioxide was found in the third layer of the 1:3 mortar, and the 1:9 mortar was quite evenly carbonated throughout.

2. Surface coating. The cubes which were not coated showed considerable carbonation at the end of 30 days and there appeared to be a fairly steady increase in the carbonation at least up to a certain limit.

The application of a  $\frac{1}{8}$ -inch white coat to the surface of the cubes retarded the rate of carbonation considerably. This effect was more marked in the case of the richer mortars than in the 1:9 mortar. While the white coat of plaster undoubtedly retards the carbonation of the underlying plaster there was, nevertheless, a steady increase of the carbon dioxide content, so it may be said that this finish coat is not impervious to carbon dioxide and its effect is therefore neither permanent nor serious. The application of an oil paint to the 1:1 mortar reduced its rate of carbonation considerably below that surfaced with a white coat. However, even in this case there was a slight increase noted in carbon dioxide content at the end of each 30 days. The painting of the 1:3 and the 1:9 mortar reduced the carbonation in about the same degree as the application of the white coat, and as these two mixes represent the two extremes which may be found in lime plasters it is evident that the painting of a sand float fin'sh will not have a serious effect upon the carbonation of the underlying plaster. However, the fact that it is possible to produce a fairly impervious film of paint on a smooth surface, such as a 1:1 mortar, would indicate that the advisability of applying an oil paint to the white coat of lime plaster before the underlying coats have completely carbonated is indeed questionable.

### A SURVEY OF SCHOOL RECORDS

Walter E. Ranger, commissioner of education of Rhode Island, recently conceived the idea of subjecting all local school officers to a survey as to the manner of keeping records and making reports to the state office. The question of securing uniform records that shall be accurate and reported with promptness has been a problem in many states. No doubt, Mr. Ranger's way of going about to get better reports will have some good effect.

The findings made on the survey go to show that the lapses are many. While clerical errors are frequent, the real trouble arises out of the fact that expediency prompts local school officials to do their account keeping in their own way, and consult their own convenience in making reports to the state department.

In discussing school budgets the Rhode Island

survey commission, consisting of Supt. Willard H. Bacon of Westerly, Supt. Everett C. Preston of Johnston, and Frederick H. Read, a commercial expert, submits the following:

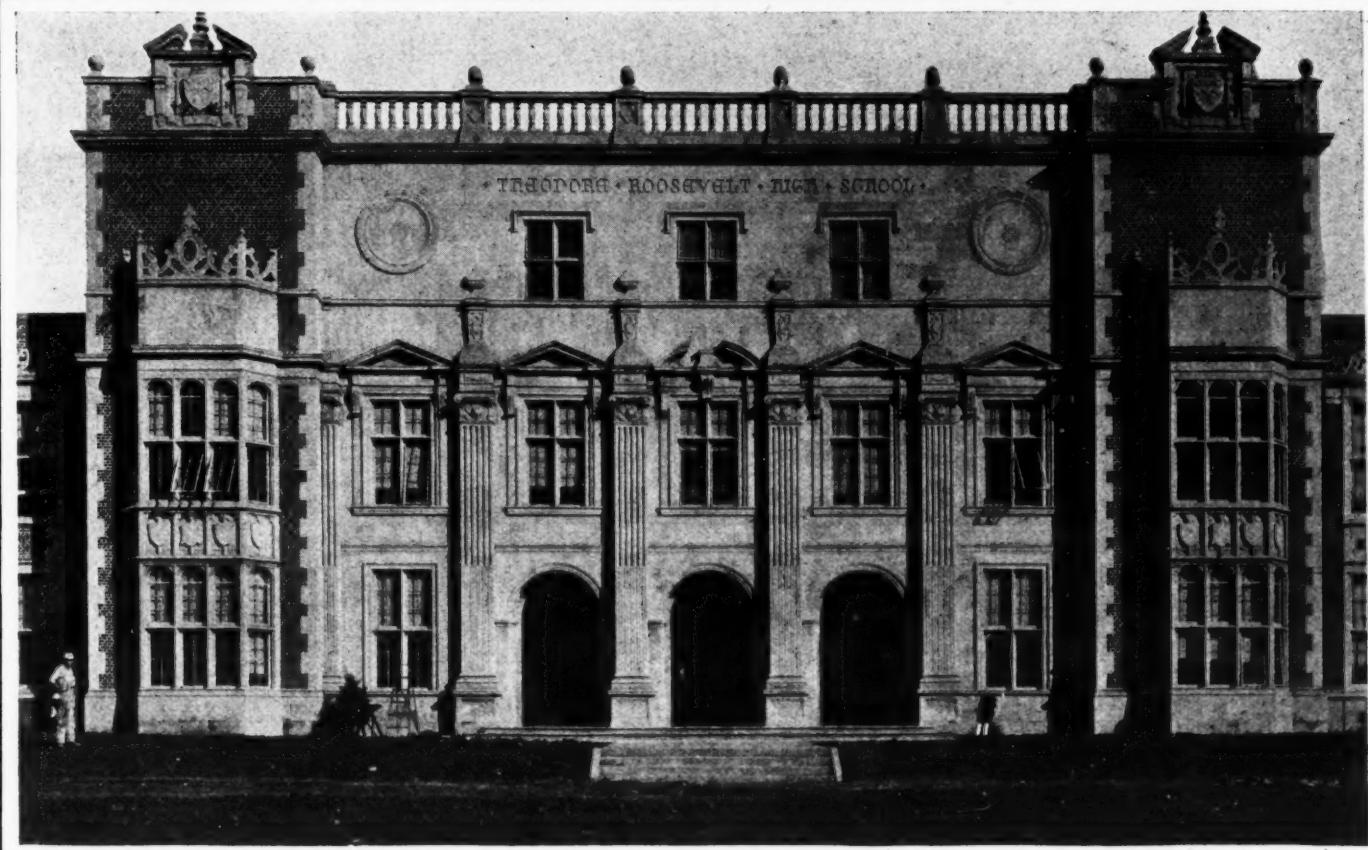
"Under the present law the school committee of every town and city is required to submit to the commission of education their estimates and recommendations of the amounts necessary for the support of public schools for the fiscal year then ensuing. In other words, each school committee is required to prepare a budget as a basis for their recommendation to town meeting or city council of the appropriation necessary for the ensuing year.

"This law is very generally observed by the town and city committees, but, as is to be expected, the form of the budget differs as greatly in the various places as do the accounting systems.

"We recommend that the form to be prescribed for the budget follow the functional headings and detailed distributions suggested above for the distribution book. With this arrangement the compiling of the estimates of the budget will be a comparatively simple matter as soon as the uniform system is in operation.

"In connection with the presentation of the school budget it is of interest to note that in about three quarters of the towns the budgets of the various departments are given preliminary consideration in 'budget committees,' sometimes elected by the town meeting, sometimes informally organized by the councils and various departments, before being recommended by the school committees to the town meetings. It should be said that while from the point of view of good financing this may be a wise procedure, it is, from the point of view of the school committee, a practice that should not be allowed to obscure their right to go direct to the financial meeting to secure funds needed for the schools.

"Under the present plan the recommendations for appropriations for all departments are made to the meetings by the budget committees or by the town councils. The danger is in bringing about a situation in which it will be generally supposed that the school committee must make its request of the council or of the 'budget committee' rather than of the people in the town meeting. The school committees need to be jealous of their prerogatives, to guard with the great amount of care all the independence that has been so slowly built up through the years."

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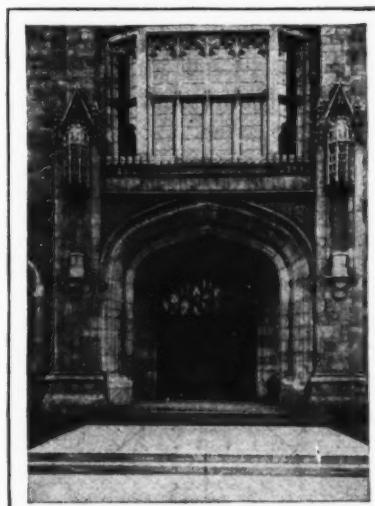
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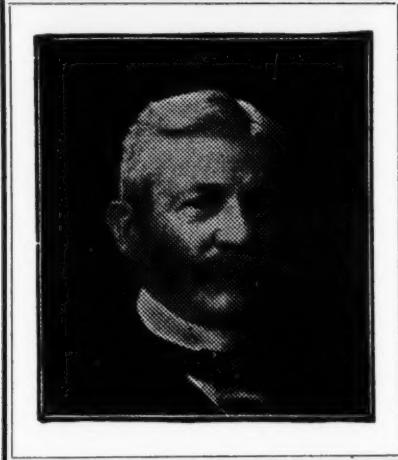
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### BUYING SCHOOL SUPPLIES

"Buying school supplies is a matter to which may be applied but few hard-and-fast rules. Large districts and small, rich districts and poor, each have different problems to meet. The employment of special supervisors in the larger districts also complicates the decisions as to quantity, quality, and range of supplies to be purchased."

This is the introductory paragraph to an article on the subject of buying school supplies written by C. B. Kelty, business agent for the school system of San Bernardino, California. Mr. Kelty further says: "There are five fundamental points, however, that all districts should observe when buying supplies. These points are: (1) what to buy; (2) how much; (3) what quality; (4) how; (5) when.

"It is impossible in many cases to determine what is wanted, unless detailed specifications are given. I received a list last year which read: 10 reams foolscap, 2 gross pencils, 12 reams scratch paper, 5 boxes chalk. Neither I nor the dealer could judge whether the pencils were to be No. 2 pencils for regular school use, or drawing pencils. The scratch paper might be 6 in. by 9 in., 9 in. by 12 in. or a special cut for use on a typewriter. The chalk required might be hard, soft, or colored, of any one of a half-dozen brands. A vague order of this kind cannot be filled accurately. Too frequently the dealer will fill it with odds and ends of stock or poorer brands of supplies yielding a greater margin of profit to him.

"The answer to all this is: Specify fully every item required. Get catalogs from the school-supply houses and give correct names, numbers and descriptions for every item on your list. Keep those catalogs up to date. Be sure to do this.

"How Much to Buy? The answer to this question should be the same for all districts. Buy what you need, and no more. Opinions will differ, depending on the wealth of each district, the number and ability of your special supervisors, and the range of subjects taught, but the answer will still hold good—buy what you need, and no more. We can't afford to overbuy, simply because someone comes along with a bargain. We have a fairly definite amount which we may spend each year. That amount should be apportioned according to our various requirements. We should then follow our apportionments as closely as possible.

"I have been with the school system almost eleven

years. In that time I have never bought a drawing pencil. Up to three years ago I had never bought refills for paint boxes. For several years after I entered school service there was a sufficient quantity of colored chalk and certain other supplies to meet all requirements. This condition came about through buying bargains. All those supplies were purchased at prices far below any I shall ever hope to secure, but those bargains were instrumental in closing our city schools some two months before the school year. Savings can be effected more safely in other ways.

"Knowing how much to buy of each supply is not difficult if a card record is maintained of all supplies used. During the school year 1925-26 our per-pupil-cost for a number of supplies in general use in grades 1 to 6 were: Foolscap 15 cents, regular pencils 14, blackboard crayons 3, crayolas 3, scratch paper 6½, water-color refills for paint boxes 1, and mounting paper 2½.

"The per-pupil-cost of these same items should be higher in the smaller districts due to the fact that our supplies are bought in larger quantities, thus giving us the advantage of better prices. By maintaining a record of supply consumption, however, every district can determine its per-pupil-consumption and its per-pupil-cost. When this is done, we need not guess at how much to buy. Half the difficulties of budget making are eliminated.

"When to Buy? The answer is: Buy early. Ninety per cent of all school districts in the state wait until the months of July and August before placing their orders. The unsatisfactory results are obvious.

"To meet this sudden increase in business, every large supply house has to employ extra help. This extra help, as a rule, is inexperienced and therefore costly in the number of errors made, and in the amount of service rendered in proportion to wages paid. Here again, the cost is passed on to us.

"Practically all school supplies are manufactured in the east. Merchants on the Pacific coast carry in stock only what they estimate to be our requirements for three months, six months, or a year at the most. With 90 per cent of our purchases falling within a period of 60 days, stocks of supplies are rapidly exhausted.

"Fill-in orders from the east are late in arriving, for the east is also suffering the rush season. Transportation on small shipments is more expen-

sive than on carload shipments. Thus, the district that is late in placing its orders, must pay a higher price for supplies which will probably arrive late and which will carry many odds and ends of depleted stocks, as well as many substitutions for items which cannot be secured at all.

"Summary. What I have been trying to tell you, may be boiled down into one short paragraph:

"First—Decide what to buy, and describe it fully.  
"Second—Base purchases on past consumption, buy what is required, and no more.

"Third—Buy good standard quality—more expensive or less expensive supplies mean money wasted.

"Fourth—Standardize requirements and secure the reduced cost of quantity purchase together with prompt delivery.

"Fifth—Buy early, and avoid the rush."

### VALUE OF SCHOOL-CENSUS RECORD

"If a large proportion of the children of school age are enrolled in the schools, and if a goodly per cent of those enrolled are in average daily attendance, the school may be said to be well utilized," says a recent report on school-census records made by the United States bureau of education. It continues:

"A knowledge of the number of children to be educated is essential to the efficient administration of a school system. In order to get this information it is necessary that the state provide for a complete and accurate counting of all the children of school age residing within its boundaries. The extent to which compulsory education and child-labor laws can be enforced depends largely upon the completeness and reliability of the school census. If the census is taken annually, it affords an index to the changing educational needs of the state which arise from the growth, movement, and character of the population.

"There is considerable variance in the legal school ages among the several states. The widest range of ages is from 4 to 20 in Wisconsin and 5 to 21 in Iowa, Maine, Minnesota, Mississippi, Nebraska, New Mexico and New York. The narrowest range is from 6 to 18 in Georgia, Kentucky, Louisiana, Vermont and Utah. The most common is 6 to 21, in 23 states. Of the 34 states having a legal school-entrance age of 6 years and 2 states with an entrance age of 7, nearly all permit kindergarten

**DURAND STEEL LOCKER**  
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education, thus in effect, lowering the entrance age.

"Age limits for compulsory attendance: 7-16, 20 states; 8-16, 10 states; 8-14, 4 states; 7-17, 3 states; 8-18, 3 states; 7-14, 2 states; 6-16, 1 state; 6-18, 1 state; 7-13, 1 state; 7-15, 1 state; 7-18, 1 state; 8-17, 1 state; 9-16, 1 state.

"The laws of most of the states provide that an enumeration of the children included within the range of ages for free-school attendance shall be taken at regular intervals. In a few states the range of ages for the children to be enumerated differs from the range of free-school attendance. For example, the laws of California place the range of ages for free-school attendance between 6 and 21, and that for the registration of minors at 4 to 17, inclusive. In South Carolina a census is taken annually of children between the ages of 7 and 14. In a majority of the states the laws require that a census be taken annually, in some it is taken biennially. In New Jersey a school census is not mandatory. The laws of that state permit boards of education, if they so desire, to take a school census once in five years."

#### VACATION TIME MEANS HARD WORK FOR SCHOOL EMPLOYEES

*School Progress*, the official bulletin of the Sacramento, California, city schools, in its issue for May 13, comments on the enormous task which confronts the employees of the school department during the summer months. It is during the vacation time that many tasks must be completed before the return of the pupils in September:

"Vacation time means anything but a vacation to the officials and employees who are engaged in the executive and administrative work of the school department. For it is during the time that the schools are closed that all of the plans and work for the following term are done."

"The superintendent and his assistants must map out all of the details for the new year; the budget items are to be made up; courses of study must be surveyed; the library needs looking into; housing provisions made for the ever-increasing attendance. These are but a few of the jobs they must complete during the vacation."

"The business manager and his aides are confronted with the task of laying in new supplies; supervision of repairwork; investigation of bids and the like. In the purchase of supplies alone they have a heavy task for care is exercised in each

item in order that the best possible price be obtained for the school district.

"The school shops are also thrown into high gear for that time. During the course of the school term the buildings naturally suffer from the wear and tear and all of these damages must be repaired. The thirty or more buildings, including the bungalows, constitute a small-size village and the work must be finished on time.

**B**ECAUSE the door and hinges are the only moving parts of a locker, and are therefore subjected to wear and tear, use and abuse, the Durand Steel Locker Company has concentrated for 25 years on this phase of locker construction, resulting in those extra years of service with which every Durand user is familiar.

From study, observation, and analysis we have developed the Durand Locker Hinge, small and inconspicuous, yet so strong that we invite the most rigid comparative tests by every buyer and prospective buyer of quality steel lockers.

Our hinge consists of two parts—one riveted to the frame, the other to the door, and both joined together to form a unit sufficiently strong to sustain any weight, or any strain placed upon it.

And beauty has not been sacrificed for strength—both are combined to blend with the smooth enameled finish, symmetrical outline, and general fine appearance of attractiveness and utility.

We offer a complete locker engineering service free—no obligation is involved. Write us for any help you may need. Catalog 21 should be in your files—send for it now.

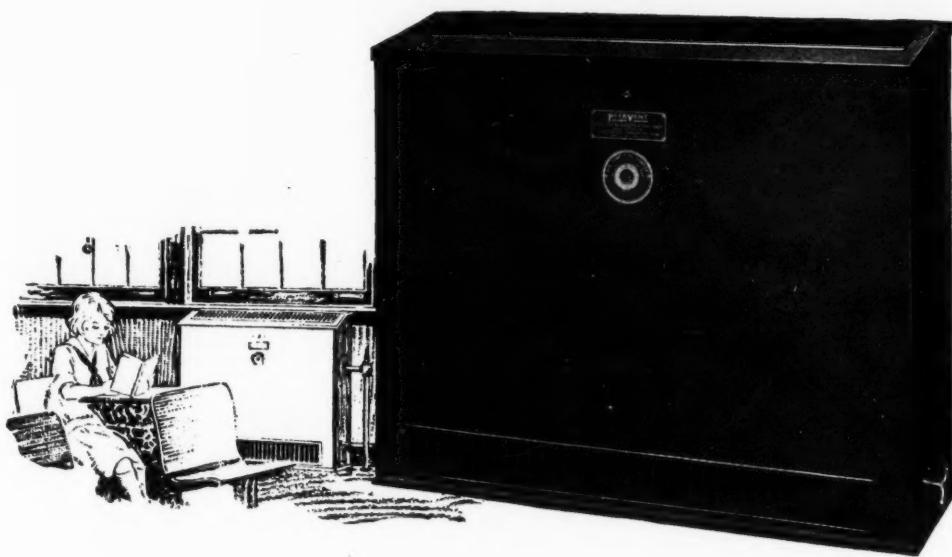
"The janitors employed in the various schools do not enjoy a period of rest as people sometimes believe. The day that school is out their busiest time of the entire year starts. All of the windows, and there are 20,000 panes of glass in the senior high school, must be washed; the desks must be cleaned; the floors are cleaned and oiled; the walls, excepting those that are tinted, are washed.

"All of this work is but a necessary part of the efficient conduct of the schools."



THE DYNAMITED SCHOOLHOUSE AT BATH, MICH.

Air view of the demolished schoolhouse in which 36 children and 5 adults lost their lives and many more children seriously injured when dynamite, set by crazed farmer, was set off. (International Newsreel photo.)



This is the standard PeerVent Heating and Ventilating Unit—36 inches high and 14 inches deep. The width varies according to capacity. Various other types are furnished to meet special architectural requirements.

## Why PEERVENT? Answered by Architects:

THE following brief comments on PeerVent Heating and Ventilating Units are from letters written by architects. Names and complete letters on request.

1. Planning and installation less expensive. 2. Installation is easier. 3. Requires less cubic feet in the building. 4. Recirculates air in the room, or forces in fresh air, as may seem necessary. 5. Each room is under its own control and not influenced by any other part of the building. 6. Air from dirtiest streets delivered clean at any desired temperature. 7. Work done (in an office) increased enough to pay for the installation several times, the first year. 8. Does away with ducts on basement ceilings. 9. Eliminates vertical ducts from basement to class rooms. 10. Flexibility in planning, especially with reference to future changes. 11. Permits shutting off any room the moment the room is unoccupied, thus economizing on steam and electricity. 12. In small communities heating contractors can be found, capable of

installing the work, who would be quite incapable of erecting a — system. 13. Cost of operation reasonable. 14. Constructed on sound engineering principles. 15. Especially well built. 16. Noiseless in operation. 17. Service of the Company very good. 18. Most economical method of getting fresh air in the building in a positive manner. 19. At all times a little in advance with improvements. 20. Positive ventilation for each room. 21. Atmospheric or weather conditions do not affect this system. 22. Rooms on various exposures can be controlled to meet requirements. 23. Saving in flue construction, also in headroom and space in the basement. 24. Room left available for school purposes in the basement. 25. Ease of regulation of temperature. 26. The system is very flexible; any degree of ventilation can be obtained. 27. Eliminates expensive duct work, thus reducing power costs and temperature drops. 28. Can be controlled separately as regards weather and direction and force of winds.

*Send for the PeerVent Catalogue and list of installations in your vicinity. If you wish to see our local representative, please so state.*

## PEERLESS UNIT VENTILATION CO., INC.

Skillman Avenue and Hulst Street (B), Long Island City, N. Y.

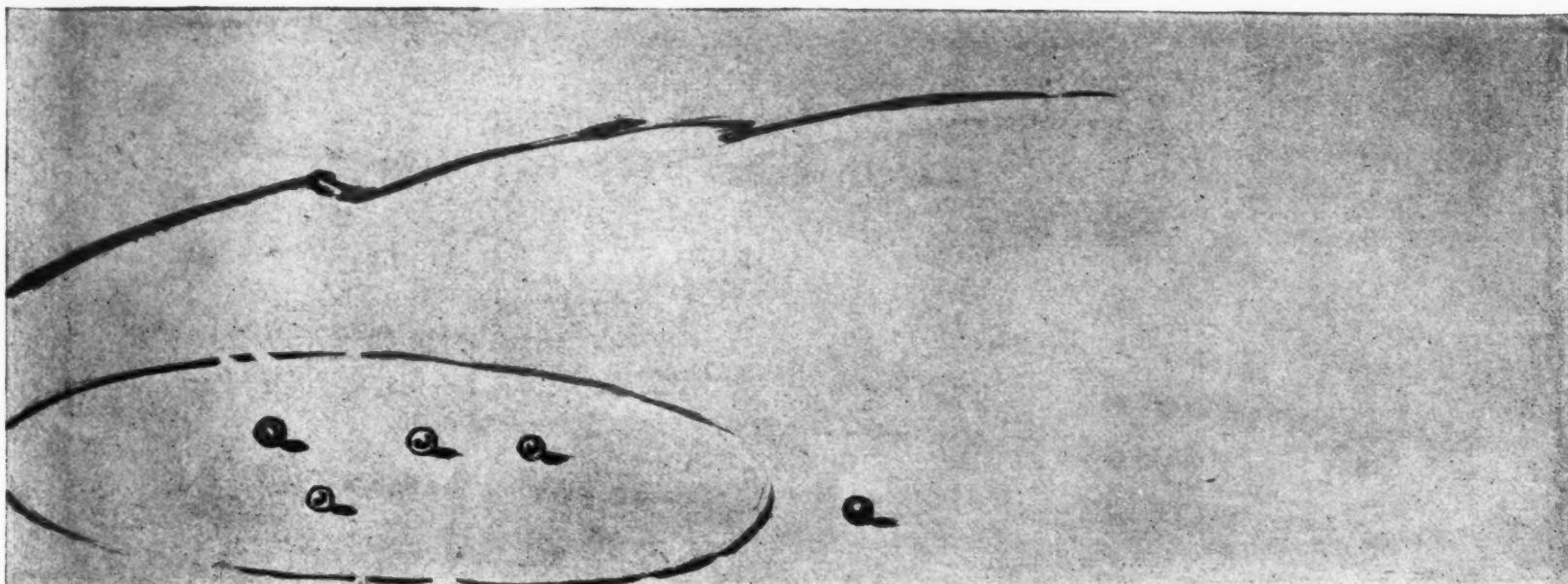
BOSTON  
100 Boylston St.  
SPRINGFIELD, MASS.  
196 Worthington St.

PITTSBURGH  
301 House Bldg.  
HARRISBURG  
705 Telegraph Bldg.  
PORTLAND, ORE.  
927 Board of Trade Bldg.

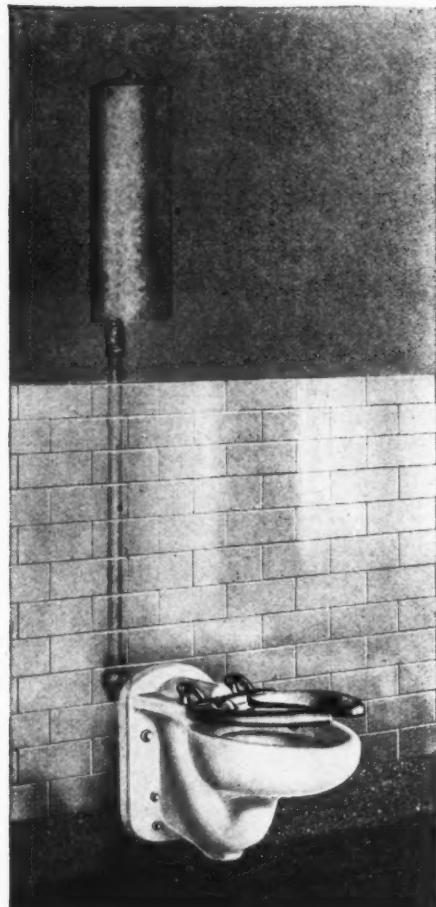
BUFFALO  
135 University Ave.  
CLEVELAND  
1836 Euclid Avenue  
TORONTO, CANADA  
Darling Bros., Ltd., 77 York St.

CHICAGO  
808 Monadnock Bldg.  
DETROIT  
1214 Lafayette Bldg.  
MINNEAPOLIS  
240 7th Avenue South  
DES MOINES  
520 Securities Bldg.

# Do these play-filled hands con-



*—or is sanitation assured by*



The Clow Automatic Closet in the new wall-hung type.  
The tank and piping can easily be extended  
behind the back wall.

**S**CHOOL boards sometimes overlook the most important factor in school health conditions and school costs — the water closet.

The play-filled hands of school children easily forget—and that forgetfulness causes unhealthy conditions and sickness.

Can you risk disease and contagion in an effort to teach a child proper sanitation? You don't trust ventilation to the childish memory. Sanitation is even more vital to their health.

### Automatic Sanitation

Clow Automatic Closets assure proper school sanitation automatically. Unfailingly, after every use, each Clow Automatic flushes itself. There is no possibility for a forgetful child to leave it unflushed.

Because the Clow closed top tank fills against air pressure—the flush is sure. The flushing pressure is always high.

### Cleans Itself From Rim to Trap

The Clow bowl is designed for automatic flushing — the only one that is—its every part, from rim to trap, is thoroughly scoured with a fast flood of water.

Operation is less expensive because the closed top tank and the Madden Valve use less water—and waste none.

JAMES B. CLOW & SONS,

# CLOW

AUTOMATIC CLOSET

Forty-Eight Styles, Heights and Types

# trol sanitation in your school—



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## *unforgetting Clow Automatics?*

### *Sanitation for the Life of the School*

Checking an ordinary school closet installation after five years' service will reveal that here are the school's first important repair and replacement costs. Contrast such ordinary records with those of the Clow Automatic — many of which have already passed the quarter-century mark, and have asked for but little repair and upkeep.

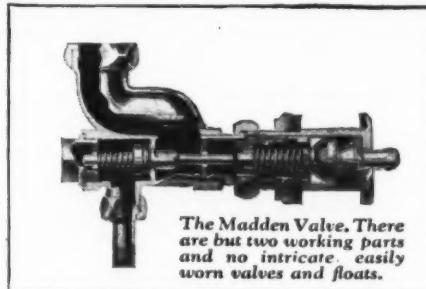
The Madden Valve, with but two working parts, has no easily worn, intricate floats nor fittings. There is little to get out of order, and less to wear out, in this strong, simple, sure-acting valve — the Clow-Madden.

### *Make Sure in Your Schools*

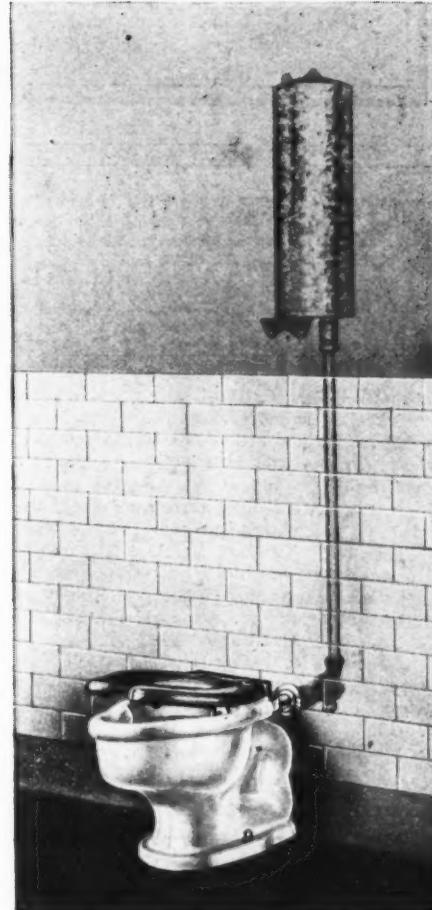
And this Clow-Madden valve remains responsible — and makes good the responsibility — for the most important factor in school operation — closet sanitation. Forgetful, childish hands don't control sanitation in schools where Clow Automatic Closets are installed.

Send today for our new "Clow School Plumbing Catalogue."

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*The Madden Valve. There are but two working parts and no intricate, easily worn valves and floats.*



*The Clow Automatic Closet—showing how tank can be extended and concealed behind the back wall.*

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T o      M e e t      Y o u r      R e q u i r e m e n t s

FOR MANY YEARS WE HAVE  
SPECIALIZED IN BONDS OF  
SCHOOL DISTRICTS. UNUSUAL  
PROBLEMS WILL BE GIVEN  
OUR BEST ATTENTION.

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NEW YORK

## SCHOOL FINANCE AND TAXATION

### A REMARKABLE SCHOOL-FINANCE DOCUMENT

The annual financial and statistical report of the New York City school system has just been issued. It deals in larger school expenditures than any other city in the world. Its disbursements for the year ending December, 1926, amount to \$122,630,006.45, exclusive of new buildings. At the same time the report shows an unexpended balance of \$18,422,284.42.

It is interesting to note how this huge expenditure is made. Here as in other school systems the instruction costs lead. This item amounts to \$88,964,045.28. The auxiliary agencies which include the maintenance of recreation centers, enforcement of compulsory education, rentals and leases, transportation of pupils and teachers, etc., cost \$2,447,546.

The physical maintenance of the school plant runs up to \$4,505,465, while the operation of the plant involves the sum of \$5,804,327. The former item includes general repairs to buildings and premises, furniture replacements, etc., while the latter item includes custodial service, firemen, cleaning, fuel, water, etc.

The fifth grand division in the budget deals with administration costs which aggregate the sum of \$2,618,988. This item is divided into educational administration, \$1,464,209; business administration, \$896,000, and general administration, \$258,778.

The percentages of cost for the several grand divisions are as follows: Instruction, 85.240; auxiliary, 2.373; maintenance, 4.317; operation, 5.561; administration, 2.509.

The tremendous size of New York's school system in comparison with other American cities is well demonstrated in the following chart:

The report constitutes a volume of 197 pages, each three times the size of pages usually employed in the publication of school reports.

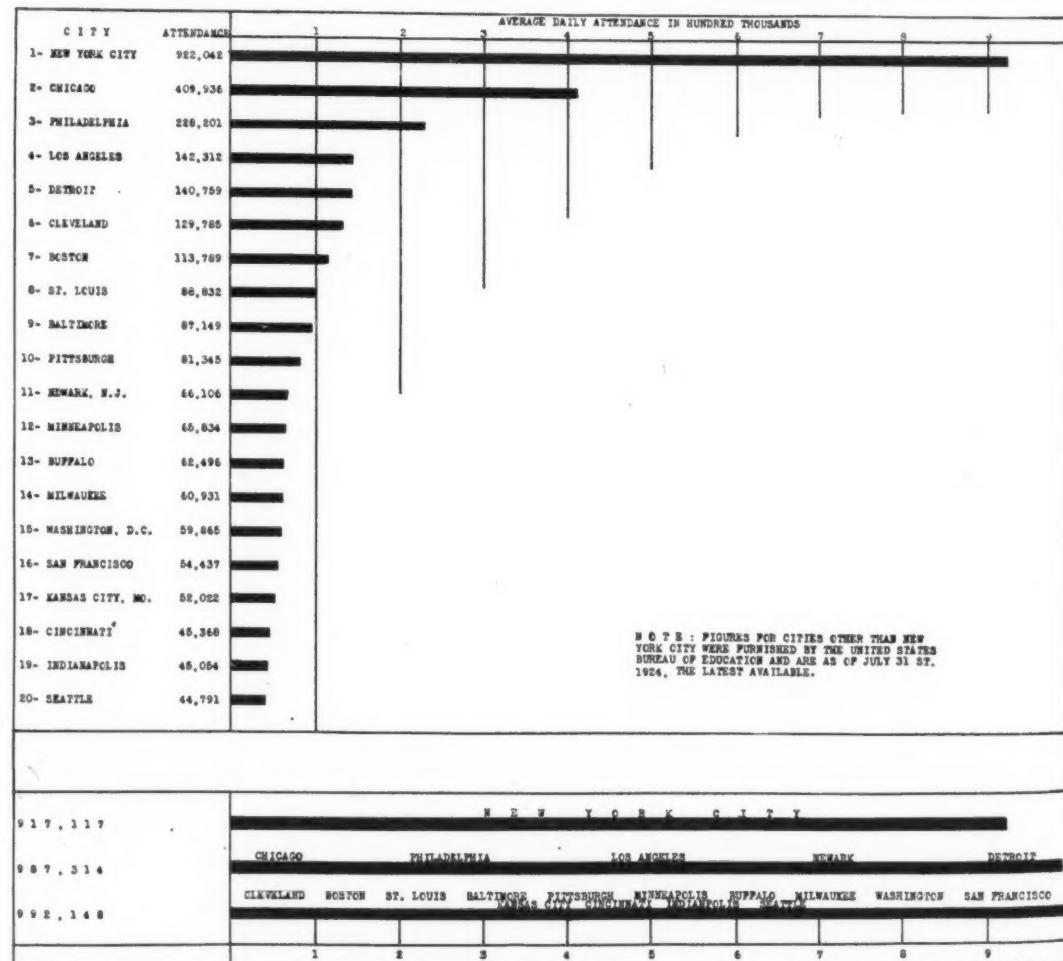
### FINANCE AND TAXATION

At a special election held at Pottsville, Pa., a proposition to borrow \$800,000 for a new high school was voted down.

"The annual per capita cost of educating children would not keep an army mule three months on the battlefield," said Pres. Francis G. Blair, of the N. E. A., in a public address delivered at Oklahoma City, Okla. "Now when we ask money for

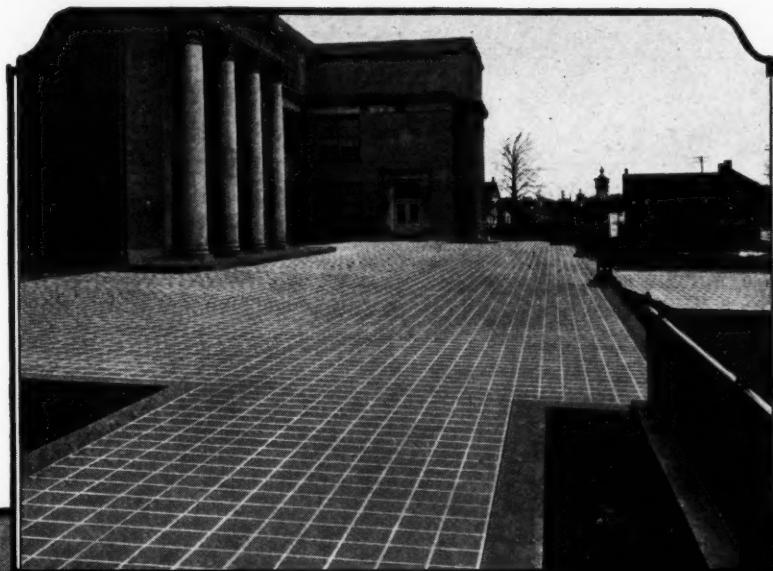
new buildings or new courses of study we hear much of the burden of taxation. We still look upon tax levies as burdens instead of regarding them as an exemplification of that biblical injunction to

(Continued on Page 86)



AVERAGE DAILY ATTENDANCE IN DAY-SCHOOL ACTIVITIES IN THE LEADING TWENTY CITIES OF THE UNITED STATES.

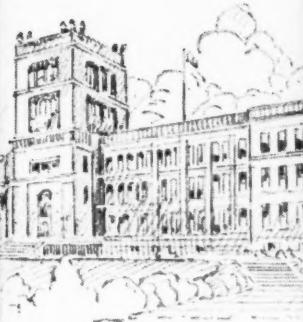
*STAIRWAY* in West Technical High School, Cleveland, Ohio, of Romany Red Quarry Tiles. W. R. McCornack, Architect for Cleveland Board of Education. Bertolini Bros. Company, Youngstown, Tile Contractors.



*MAIN Corridor* in Patrick Henry School, Cleveland, Ohio, laid in Romany Red Quarry Tiles. W. R. McCornack, Architect for Cleveland Board of Education. Prospect Marble & Tile Company, Cleveland, Tile Contractors.



*TERRACE* of the Bethlehem, Pa., High School, paved with 6 x 6 Romany Red Quarries. Ritter & Shay, Architects. Italian Marble & Mosaic Company, Philadelphia, Tile Contractors.



## Resists— Wear, Boys, and the Elements

THESE three—the most powerful destructive agents of all school property—have never marred the original beauty of a floor or wall of Romany Quarry Tiles.

Their attractive appearance is assured forever!—Because they are harder than natural stone; practically non-absorptive; and of uniform texture throughout.

For durability, permanent attractiveness and low cost, Romany Quarry Tiles stand alone among desirable floor and wall surfacing materials.

*Romany Quarry Tiles are an American product. They are made in Romany Reds, Romany Greys, Romany Browns, and the beautiful Romany Rainbow Shades.*



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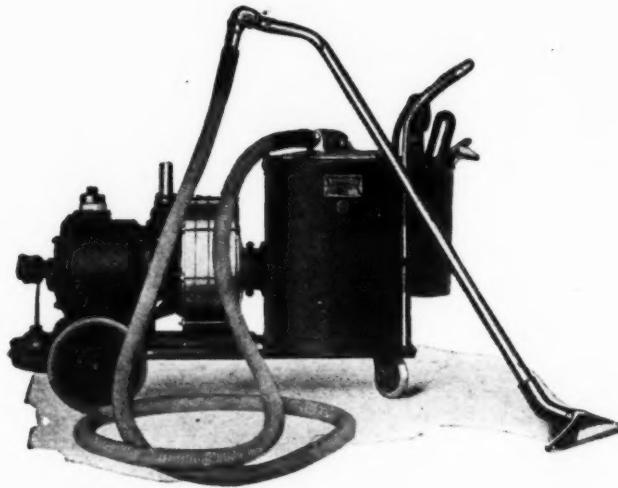
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"INVINCIBLE" Portable Vacuum Cleaners meet every school requirement. They have tremendous cleaning power, are easily handled, and are sturdily constructed to give a life time of satisfactory service.



"INVINCIBLE" Portable Vacuum Cleaners require no intricate piping and no long, heavy lengths of hose. Their maintenance and operating cost is extremely low.

"INVINCIBLE" Portable Vacuum Cleaners clean floors of any kind, blackboards, chalk troughs, erasers, walls, ceilings, window ledges and in fact every nook and corner of the entire building.

*Write us today for complete information and report on cleaning schools.*



## INVINCIBLE VACUUM CLEANER MFG. CO. DOVER, OHIO, U.S.A.

(Continued from Page 84)

bear one another's burdens. In no other way do we so completely share our burdens as through the tax we pay."

The Muscatine, Iowa, board of education has sold \$75,000 worth of school bonds bearing 4 per cent interest, maturing in eighteen years.

Supt. B. C. Wooster charges that boards of education in Bergen county, N. J., are wasteful in the expenditure of funds. The hiring of unnecessary legal service is particularly complained of.

Current expenses per pupil in average daily attendance in regular day schools during the school year 1925-26 amounted to \$104.82 in 35 cities of the United States having 100,000 or more population, according to an analysis of per capita costs, in 247 school systems made by the U. S. Bureau of Education.

In the 60 cities of 30,000 to 100,000 population embraced in the survey, the cost was \$92.85 for each pupil in average daily attendance; in the 70 cities of 10,000 to 30,000 population, \$85.38; and in the 82 cities of 2,500 to 10,000 population, the current expense for each pupil in average daily attendance was \$74.80.

The school board of Boston, Mass., has adopted a budget of \$7,259,293. To this will be added an appropriation "on account" of \$7,603,500, made by the committee in April of this year, making a total of \$14,862,793. This amount, added to the excluded item of \$1,675,362, makes a total appropriation of \$16,538,155.

The amount is exclusive of appropriations which will be made later for lands, plans, and construction of school buildings. Under the \$10,000,000 building program adopted a year ago, \$4,000,000 was appropriated last year and \$3,000,000 will be appropriated this year. There is also an unexpended balance of \$1,810,695 remaining from the financial year 1926. The total of \$4,810,695, added to the \$16,538,155, makes a grand total of \$21,348,851, which will be available for school purposes this year. The largest increase was in teachers' salaries, which is \$1,011,590 more than last year. This has been attributed to the continuing cost of the general salary increases to all teachers, to the large number of vacancies, and to the automatic increases for teachers who have not reached the maxima for their schedule.

—Bay City, Mich. The school board has adopted a budget of \$1,018,300, which is an increase of \$57,648 over 1926.

—Fort Smith, Ark. The school board has asked for the approval of an eighteen-mill tax levy to finance a bond issue for a new senior high school.

—Cape Girardeau, Mo. The school board has adopted a budget of \$223,648 for the next year, which is a slight increase over last year.

—Poplar Bluff, Mo. The school board has effected a number of retrenchments because of adverse financial conditions. The departments of manual training, home economics, and commercial work have been eliminated and it is possible that the teacher-training course will be discontinued.

—The schools of Slater, Mo., were able to complete a full nine-month term with the aid of a special fund. The school fund was exhausted at the end of eight months and there was no surplus from last year's fund. With the cooperation of the teachers, the school board, and the school patrons, the situation was overcome and the schools continued in session for one more month.

—New Rochelle, N. Y. The school board has adopted a budget of \$402,000 to operate the schools during the next year. The sum of \$34,000 will be required for increases in salaries alone.

—Atlanta, Ga. With the application of the strictest economy, the school department has this year been able to save \$104,000 on its budget estimates. If the present trend of saving is continued, the schools will not be obliged to close for a thirty-day period this fall, as had been originally planned.

—Bristol, Va. The school board has adopted a budget of \$92,000 for school maintenance for the school year 1927-28.

—At an election held at Union, Mo., a tax levy of twenty cents for building and repairwork was lost, while an 85-cent levy for general school purposes was approved.

—St. Louis, Mo. The school board has adopted a plan for a radical curtailment of the eight weeks' summer-school session, to save \$250,000 by reducing salaries, limiting summer classes to pupils retarded in their studies, and closing some of the schools. The purpose of the curtailment is to keep the 1927-28 expenditures within the revenue obtained from taxation and to limit the summer-school work to the class of pupils for which it was intended.

—Indianapolis, Ind. School-budget sums of 34 different accounts, ranging as high as \$3,170 in one instance, have been transferred by the school board to take care of contemplated expenditures for the remainder of the fiscal year. The fund shifting is the last of a number of such actions taken by the board in the last year which has almost completely changed the funds of the original budget.

—Lincoln, Nebr. The school board has adopted a tentative budget calling for an expenditure of \$1,814,000.

—Kalamazoo, Mich. The school board has adopted a budget of \$1,449,570, for 1927-28, which is an increase of \$78,000 over last year.

—Boston, Mass. In adopting a budget of \$14,862,793 for 1927-28, the school board has refused to allow the city authorities to retain a balance of \$700,000, which the Mayor requested be turned into the general treasury. The largest single item in the budget is \$11,434,000 for salaries of teachers, an increase of more than \$1,000,000 over last year.

—Cleveland, Ohio. The school board has been warned that it may expect a radical reduction in the proposed \$17,000,000 budget because of the failure of taxpayers to meet their obligations. The approximate amount which the board will lose is \$500,000. The only marked increase that is obligatory on the part of the board is the automatic increase in teachers' salaries, which will total about \$400,000.

—Nevada, Mo. The school board has reduced the school tax levy from \$1.60 to \$1.40.

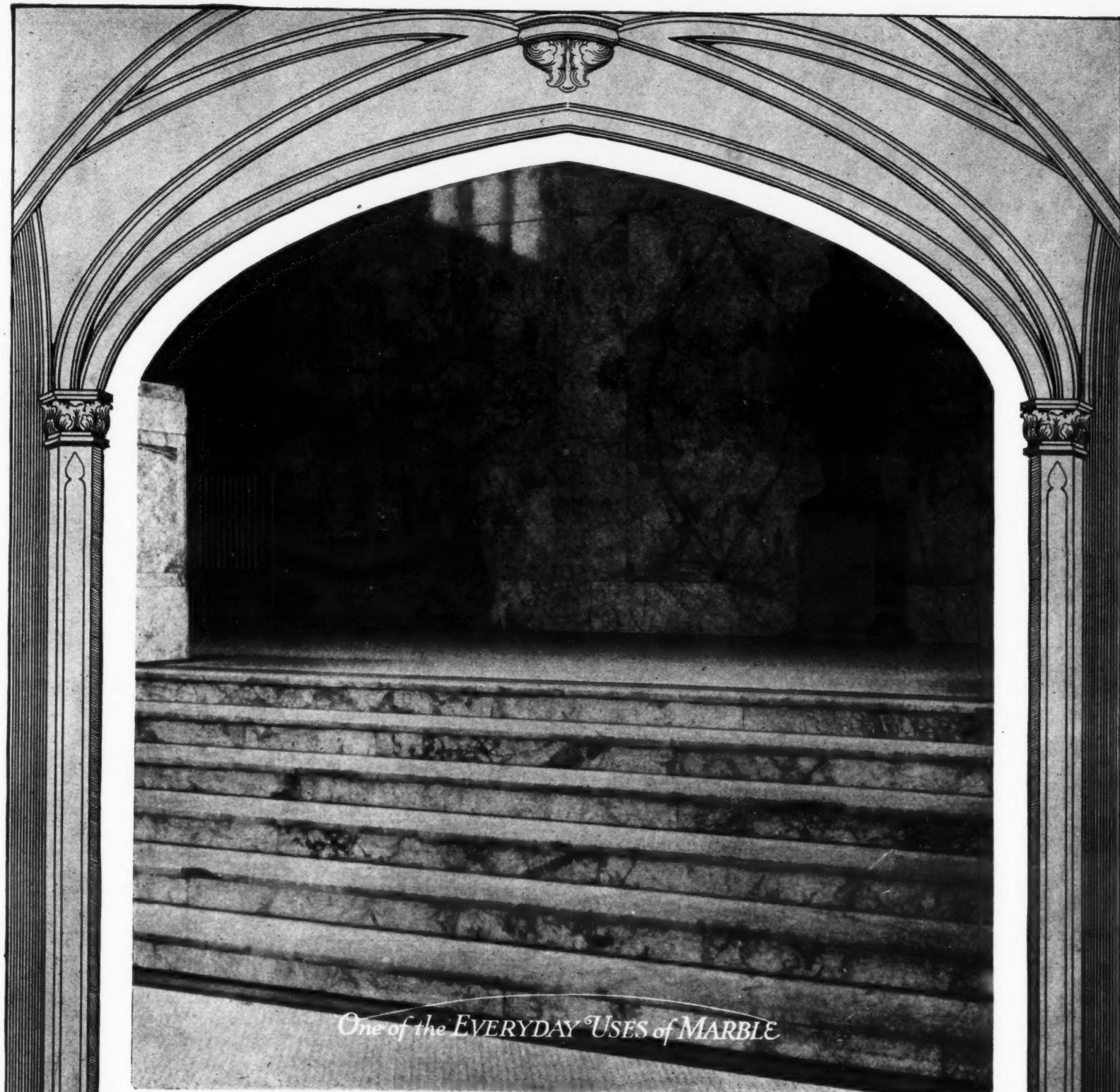
—Little Rock, Ark. The school board has asked for an increase in the millage tax for school purposes from twelve to eighteen mills to care for an increase in enrollment.

—Blackwell, Okla. The citizens have approved a fifteen-mill school levy for general school purposes.

—Jefferson City, Mo. The school board has approved an increase of fifty per cent in tuition rates assessed nonresident students. The new rates which go into effect in September, provide a tuition fee of \$18 to \$27 for elementary schools; \$36 to \$54 for high schools, and \$72 to \$108 for the junior college.

—Little Rock, Ark. The eighteen-mill tax levy for schools was carried by the voters at the May election.

(Concluded on Page 89)



## *Only the Best is Good Enough*

CASTLES in Spain . . . structures of the imagination . . . such images are the "brood of desire"—a desire for the better things of life—a desire shared by everyone. And it does not pay to be satisfied with anything short of the best, especially in matters incident to the education of our children. Certainly in our schools, only the best is good enough.

Marble, the inimitable gift of Nature, satisfies the higher human instinct for the cultural. For ages, and throughout the world, it has been man's choice for the expression of elegance, dignity and refinement.

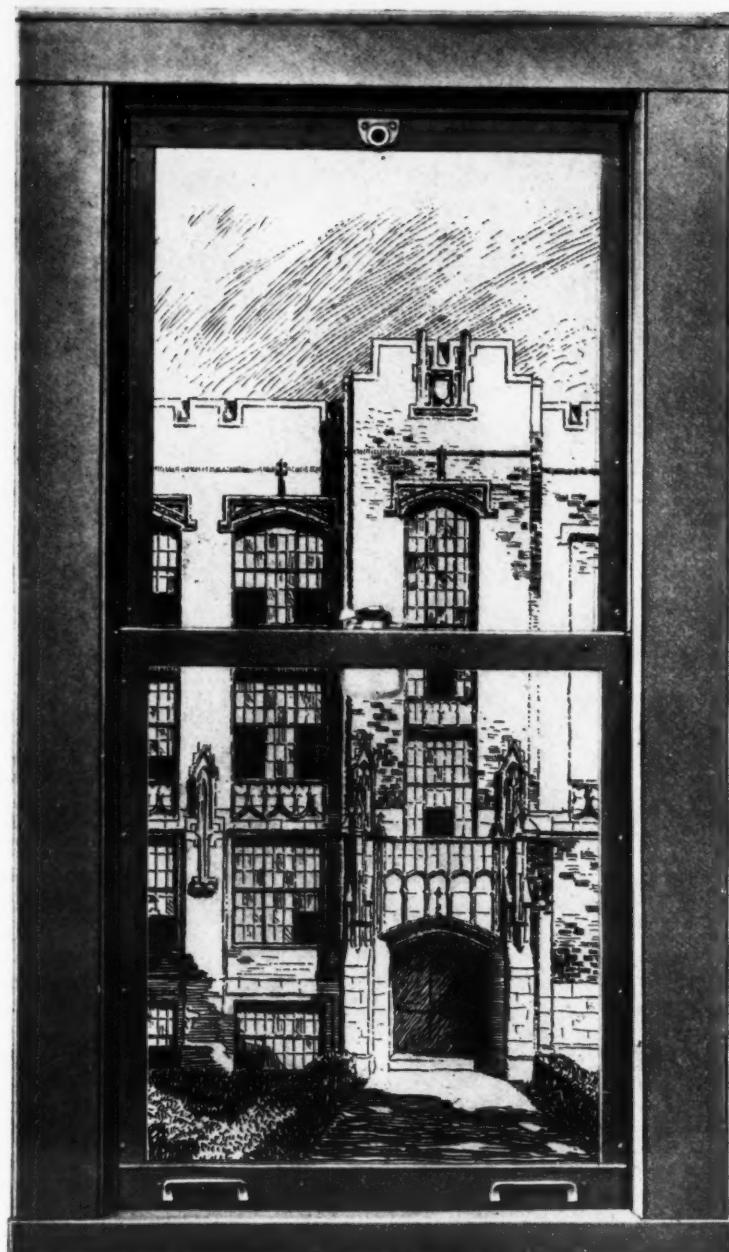
The fact that marble also possesses inherent qualities of durability, cleanliness and low cost of maintenance is an additional—but potent—reason for its universal present-day popularity among our more observant educators. This only serves to emphasize the actual economy of marble as an interior finish for school buildings.

*An illustrated folder detailing the advantages of marble in school buildings is yours for the asking.  
Write to Department F-10—no obligation, of course.*

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AN INSIDE VIEW OF A LUPTON DOUBLE HUNG-STEEL WINDOW. THIS UNIT 4' X 7' LISTS AT \$33

**I**N YOUR SCHOOL, windows are so important that their proper selection should reckon with every factor. The plan and exposure of the building, its outward appearance, the nature of its surroundings and the range of local climate should all be carefully considered.

Why not ask Lupton, pioneer makers of steel windows for schools, how best to provide ideal lighting and ventilation for every room? There is no charge for the recommendations of Lupton engineers. Ask for a copy of "Lupton Windows for Schools."

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**L U P T O N**  
**W I N D O W S**  
*of STEEL*



*—and  
he  
works  
faster*

## **DAYTON** **Safety Ladder**

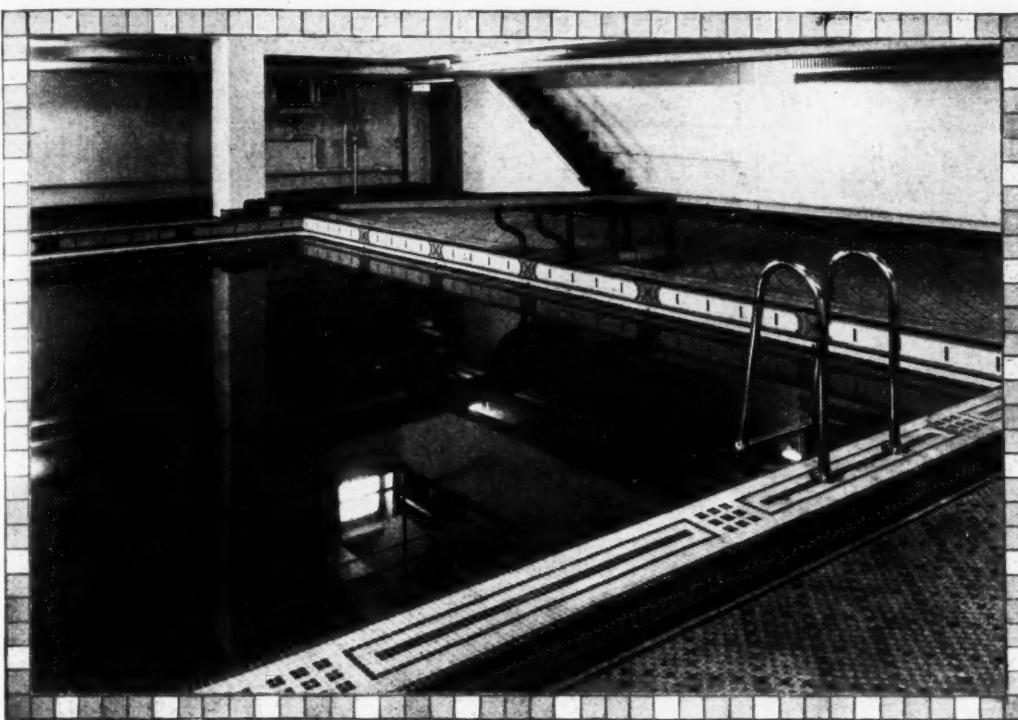
In school buildings everywhere, the Dayton Safety Ladder is fast becoming standard equipment.

Standing on the wide platform of the Dayton, protected by high guard rails, the workman has no fear of falling. He uses both hands, gets close to his work without constant moving of ladder, has plenty of room on the platform for tools and equipment, wastes no time climbing up and down.

Made of steel-braced aeroplane spruce, with wide leg-spread and safety lock, the Dayton Safety Ladder cannot tip, collapse, sway or slide. Folds compactly when not in use. Quickly pays for itself in faster work; prevents dangerous and costly accidents. Made in sizes 3 to 16 feet.

*Write Dept. A.S.B. 7 for complete information*

**THE DAYTON SAFETY LADDER CO.**  
121-123 West Third St., Cincinnati, Ohio



NORTON COMPANY, WORCESTER, MASSACHUSETTS  
New York, Chicago, Detroit, Philadelphia, Pittsburgh, Hamilton, Ont.

**NORTON FLOORS**  
Alundum Tiles, Treads & Aggregates

(Concluded from Page 86)

—Pine Bluff, Ark. The voters have been asked to approve a sixteen-mill tax for school purposes. The present tax levy is twelve mills.

—El Paso, Tex. The school board has approved an increase of \$15,000 in the budget to provide for a new salary schedule.

—Mansfield, Ohio. There will be an increase of \$45,000 in the budget next year due to an increase in the number of teachers.

—Erie, Pa. The school board has adopted a budget of \$2,336,200 for the year 1927-28. Under the budget, the cost for administration will be \$69,823; for operation, \$206,578, and for maintenance, \$122,143.

—Kenmore, N. Y. The board of education has adopted a budget amounting to \$546,684.

A special meeting of the district was held in June to obtain approval for a bond issue of \$405,000 for a new school.

—Kansas City, Mo. The board of education recently sold \$2,000,000 worth of four-per-cent school bonds to a syndicate of financial houses, at a premium of \$1,826. The sale represents the last of a \$5,000,000 bond issue authorized by the voters in June, 1925.

—Rye, N. Y. The school board has adopted a budget of \$115,900.

—East Liverpool, Ohio. The board of education at the last election in November voted all bonds and interest outside the limitation, thus giving the board sufficient funds with which to operate the school system.

—Glendive, Mont. A five-mill school levy has been approved.

—At Nutley, N. J., three new schools will be occupied in September, 1927. The new high school, costing \$700,000, will have a capacity of one thousand pupils. It contains 23 classrooms, in addition to two gymnasiums, an auditorium, and a cafeteria. The Washington school will be provided with gymnasium, auditorium, and library, and will also accommodate one thousand pupils. The buildings were erected from plans prepared by Guibert & Betelle, architects, Newark, N. J.

—Frankfort, N. Y. Plans have been prepared for a junior-senior high school to cost \$175,000. The school will be erected on a five-acre plot of ground which has been purchased for the purpose.

## SCHOOL BOARD JOURNAL

# For the Modern Natatorium

*A Floor that is Slipproof—  
Wet or Dry*

The new swimming pool at the Worcester Polytechnic Institute, Worcester, Massachusetts, represents the latest word in natatorium design. The curb and the entire floor surrounding the pool have been made slip-proof—even when wet—by the use of Alundum Ceramic Mosaic Tile in combination with vitreous tile. The color scheme has been worked out in red and gray, the college colors, using  $\frac{3}{4}$ " square gray and white granite Alundum mosaics in combination with gray and red vitreous mosaics. At the bottom of the stairway from the locker room is a foot-bath lined entirely with white granite Alundum mosaics.

Precast Alundum Aggregate Treads with precast marble risers to match have been used on the stairways.

<b>NORTON FLOORS</b>	
Alundum Tiles, Treads & Aggregates	
<b>NORTON</b>	

—Albion, N. Y. The voters have approved an expenditure of \$50,000 for the improvement of the physical facilities of the school plant. A new heating plant will be installed, repairs will be made to the floors, and fire-protection facilities will be installed.

—Kenmore, N. Y. Additional land has been purchased which is to be added to the Roosevelt School site and the Sheridan School to make it possible to have adequate playground space.

### IMPORTANT SCHOOL-BOND SALES OF THE PAST MONTH

Alabama—Montgomery, School, W. R. Harrison, Supt.	\$ 350,000
Alabama—Montgomery, School, W. R. Harrison, Supt.	1,000,000
California—Los Angeles Co., Huntington Park Union High School Dist., Mark Keppel, Supt., Los Angeles	300,000
Florida—Hillsborough Co., Con. Spec. Tax Sch. Dist. No. 4, Omer Carmichael, Supt., Tampa	1,170,000
Florida—Pinellas Co., Sch. Dist. No. 3, R. S. Blanton, Supt., Clearwater	450,000
Florida—St. Johns Co., Spec. Tax Sch. Dist. No. 1, Robert Meserve, Supt. St. Augustine	250,000
Indiana—Evansville, Sch. Dist., John O. Chewning, Supt.	260,000
Kansas—Topeka, Sch. Dist., A. J. Stout, Supt.	250,000
Massachusetts—Leominster, School, W. H. Perry, Supt.	270,000
Michigan—Monroe, Sch. Dist. No. 1, C. W. Crandell, Supt.	750,000
New Jersey—Bloomfield, School, George Morris, Supt.	299,000
New York—Alexandria, Union Free Sch. Dist. No. 5	325,000
New York—Geneva, Sch. Dist., W. Lynn Houseman, Supt.	322,000
New York—New York, School Construction, Dr. Wm. O'Shea, Supt.	4,000,000
New York—New York, Construction of Schools, Dr. Wm. O'Shea, Supt.	17,600,000
Ohio—Cleveland Heights, Sch. Dist., F. L. Wiley, Supt.	262,000

Ohio—Sandusky, Sch. Dist., F. J. Prout, Supt.	280,000
Pennsylvania—Carlisle, Sch. Dist.	257,000
Pennsylvania—Philadelphia, Sch. Dist., Edwin C. Broome, Supt.	3,000,000
Pennsylvania — Reading, Sch. Dist., Landis Tanger, Supt.	1,000,000
Texas—Edinburg, Con. Sch. Dist., H. C. Baker, Supt.	1,700,000
Utah—Salt Lake Co., Granite Sch. Dist., D. C. Jensen, Supt., Sandy	300,000
Personal News Supts.	

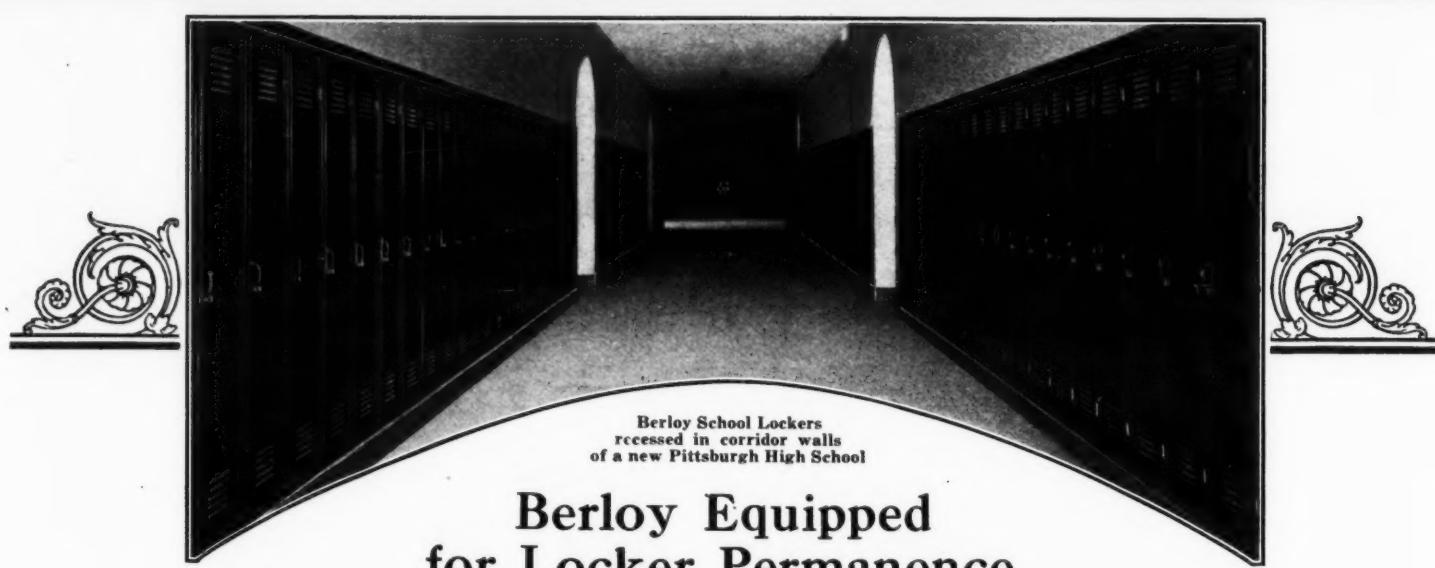
### BOSTON SCHOOL SYSTEM ADOPTS BUDGET

The school board of the city of Boston has adopted a budget amounting to more than \$21,000,000 for the operation of the schools during the current year, an amount which is considerably in excess of that appropriated a year ago.

The maintenance budget, which amounts to \$7,259,293, provides for the cost of maintenance of the schools, including the cost of administration and supervision, and the cost of sundry other services and expenses, exclusive of alterations and repairs to school buildings, furniture and fixtures, fire protection, and the improvement of the school yards. The amount available for these excluded items, \$1,675,362, is provided for in a separate appropriation order.

The maintenance budget will be enlarged with an appropriation "on account" of \$7,603,500, which makes a total of \$14,862,793. The amount, added to the excluded item of \$1,675,362, makes a total appropriation of \$16,538,155. The amount is exclusive of appropriations to be made for lands, plans, and construction of new school buildings. Under the \$10,000,000 building program adopted a year ago, \$4,000,000 were appropriated last year, and \$3,000,000 will be appropriated this year. An unexpended balance of \$1,810,695 remaining at the end of the financial year will also be available for building purposes during the next year.

Among the larger items in the maintenance budget are salaries of teachers and employees of the school system, pensions, physicians and nurses, repairs and alterations to schools. The item of salaries alone is slightly in excess of \$1,011,590 more than last year. The larger part of the increases are due to natural growth and changes in the school system and other necessary adjustments.



## Berloy Equipped for Locker Permanence

Recessed in corridor walls of the new Pittsburgh High School are 820 Berloy Steel Lockers—sound, well-built lockers that give longer, better service.

In other principal cities as in Pittsburgh, you will find Berloy School Lockers, the choice of school board officials and the preference of teachers and pupils. Such

universal popularity is a well earned tribute to the superiority of Berloy construction.

When considering additional locker equipment be sure to phone our nearest branch or write the home office for catalog and complete information.

The Berger Mfg. Co.,  
MAIN OFFICE AND WORKS  
Canton, Ohio

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**BERLOY**  
**SCHOOL LOCKERS**

### BRANCH OFFICES

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New York	Rochester	Philadelphia	Dallas
		Minneapolis	San Antonio
		Kansas City	Cincinnati
		Seattle	Columbus
		Jacksonville	Newark, N. J.
			Long Island City

## Clerical Help in the High-School Principal's Office

S. R. Bumann, Port Arthur, Texas

The greatest emphasis has been placed, in recent years, upon the importance of supervision. The necessity of a good supervisory head for every high school has been accentuated in all literature dealing with the high school. This has been the more striking because of the fact that most high-school principals confess that the smallest part of their time is taken up with supervisory duties. In many cases this has been acknowledged as due to taking the course of least resistance. Possibly if these same administrators would venture further in their thinking, many of them would frankly acknowledge that this was due to, besides an inferiority complex in this particular field, the knowledge that this is the part of the job that the particular principal can do the least efficiently.

In addition the principal does not supervise his office nor handle his routine details in an efficient manner. The main contention on the part of these harassed and apparently overworked members of the profession is that they do not have sufficient clerical help. Quantity is not the chief trouble. Difficulties are only multiplied by each addition to the clerical force if these people are immature, poorly trained, and inaccurate. A high school cannot run efficiently, smoothly, or economically if the routine details are not cared for. That is the first duty of the administrator. Without that part of the organization functioning, no amount of teacher supervision will make the administrator a success in his community.

The business world recognizes the necessity of accurate records and reports. Teachers have no conception of the amount of thought and the amount of time that business organizations devote to their records. Records are fundamental; they are the basis on which business is constructed. They must be accurate. As a barometer indicates the changes in the weather, so do the records of an organization indicate the development within the plant. Just as an inaccurate barometer would be a menace to a ship captain, so are inaccurate records a menace to any organization. In business the loss of thousands of dollars frequently depends on correct recording of facts. Large manufacturing

plants today have experimental staffs constantly at work perfecting new processes. These processes are worked out and studied from the angle of possible commercial perfection.

The idea, of course, is to develop a better process for the attainment of a certain end and to develop a cheaper means of accomplishing a given result. After a process is developed and the possible profit demonstrated, the product goes on a commercial basis. In this case the fact that the experimental staff may have overlooked a drawback or an expense means the scrapping of an immense amount of material and the loss of thousands, in some cases, hundreds of thousands of dollars. For this reason care is taken that the records are accurate and the reports concerning this new work are very carefully checked and rechecked before they are finally approved.

Industrial concerns go further than this. Records concerning the personnel of their force are in turn accurate. Attendance is more carefully checked than in any school. Absenteeism in industry is a serious problem. Schedules calling for so many man-hours of work are laid out day by day. The men must be in the gangs or give a good reason for not being there. Teachers who feel that the requiring of excuses is an inane procedure should make contacts with some manufacturing plant and note how closely men are checked for their attendance at work. In industry it is not merely a matter of losing a grade for the day; many times a man's job depends on his presence or a satisfactory explanation as to his absence. Here again accuracy of records is of prime importance.

What does all this have to do with the clerical assistance in the high-school principal's office? Only this: Clerical details must be handled if the school is efficient. Poor clerical help is almost worse than no help. Good clerical help can frequently raise a mediocre administration into the class of a fairly good administration.

### Sent Out a Questionary

In order to study the trend of clerical help, a questionnaire was sent to some of the high schools in the country. The schools were selected by two

methods. First, a random sampling of all schools whose enrollment was given at around 800 in the report of the Northcentral Association, was taken. Second, schools located in towns whose population, according to the last federal census, was given as between 20,000 and 30,000, were selected from many different states in the Union. On this basis letters were sent to 37 "Northcentral" schools and to 40 other schools selected on the basis of population.

The following questionary was mailed:

We wish to find out the amount of clerical help used in schools of about our own size. We would appreciate having this blank checked in the proper spaces and returned to us in the enclosed stamped envelope.

Enrollment .....? Number of stenographers in office .....? Number of clerks .....? Total of all clerical help .....? Do you have a girls' adviser .....? Does she assist with office routine .....? Do any teachers help in the office .....? How many teacher-hours per day .....? Do any students help in the office .....? Do they work on records .....? Stenographic work .....? How many student-hours help per day .....? Is your student help efficient .....? How many hours per day do you spend in clerical work .....? Would you get better results with more help .....? Remarks: Very truly yours, (Signed) S. R. Bumann.

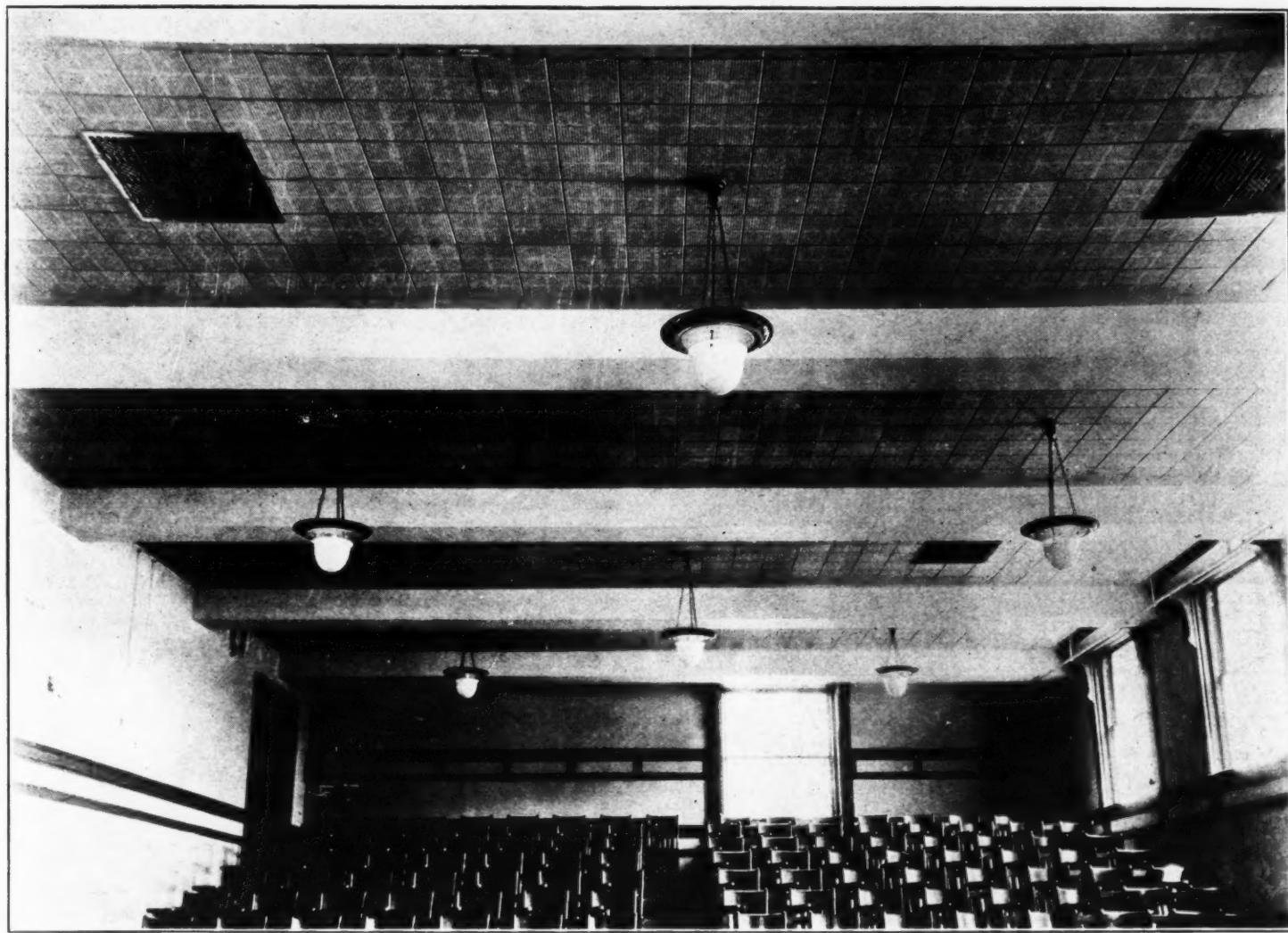
Each questionary was a personal letter. In this way it was felt that a better and more representative result might be obtained.

Replies were received from 67 schools in 24 states scattered from the Atlantic to the Pacific and from the Great Lakes to the Gulf of Mexico. The states represented and the number of cities represented in each state is shown in Table I.

State	Cities	State	Cities
Illinois	13	Michigan	2
Colorado	7	Minnesota	2
Ohio	5	Montana	2
Wisconsin	5	Arizona	1
Kansas	4	Florida	1
Indiana	3	Georgia	1
Washington	3	North Dakota	1
Wyoming	3	South Carolina	1
Arkansas	2	Tennessee	1
California	2	Texas	1
Connecticut	2	West Virginia	1
Iowa	2	Total	67

These schools represented 87 per cent of the letters mailed. Considerable interest was manifested by those replying. It is possible that the thirteen per cent failing to reply had so little clerical help, and that these principals were so rushed personally that they just could not manage to answer the communication.

Many weaknesses in this study are easily discernible. A scientific study of wide range could (Continued on Page 92)



Lecture room, University of Texas, Austin, Texas. "Before we treated this room with Acousti-Celotex, it was almost impossible to use it for class purposes," declares J. W. Calhoun, comptroller, University of Texas. "It was always filled with echoes and disturbing

noises, and students sitting in the back part could never hear. Now these conditions have been entirely removed, and the room is highly satisfactory to both lecturer and students." Herbert M. Greene, architect; S. W. Nichols Company, Acousti-Celotex contractors.

## Your students need the quiet that Acousti-Celotex brings

**N**OISE is a constant, irritating factor in schools. It disturbs concentration and is a strain on the nerves. More than one sensitive youngster has failed in his school-work because of this. And noise is equally as hard on the teachers, for it distracts their attention and wears down their patience.

These harmful sound conditions are being corrected everywhere with Acousti-Celotex. Already used extensively in auditoriums, it is now being recommended by school authorities for class rooms, shops, corridors, gymnasiums, chapels, cafeterias, band and chorus rooms.

Acousti-Celotex creates quiet by the simple process of swallowing up distracting noises. It is an excellent natural sound-absorbing

material. And it is absolutely fool-proof. Since it comes from the factory in finished, complete units its application is no more complicated than redecorating your rooms.

An additional merit of Acousti-Celotex is its adaptability to decorative treatment. The units can be painted, stained or stenciled in any pattern either before or after application, without appreciably affecting their sound-absorbing qualities.

Your school can have the benefit of less noise and better hearing—Acousti-Celotex can be installed during the summer recess. Our acoustical engineers will tell

you, without obligation, how it is done and what it will cost.

Write now, for the Acousti-Celotex book.

**THE CELOTEX COMPANY, Chicago, Illinois**  
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Please send me the Acousti-Celotex book—"Less Noise—Better Hearing."

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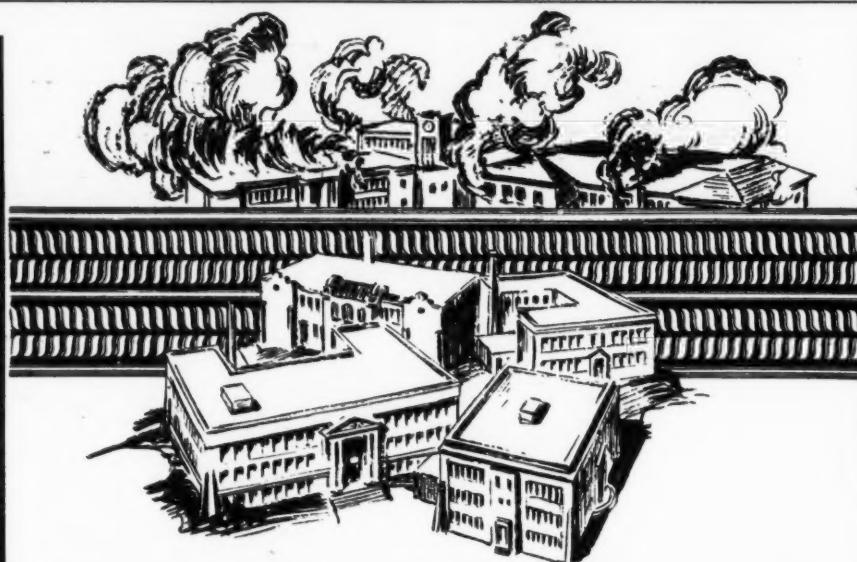
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Firesafe, Crackfree  
Wall Construction



Milcor "Expansion" Casing (Patented June 12, 1922 and January 26, 1926). This metal trim, shown here in position in a wall plastered on Milcor Stay-Rib metal lath, eliminates costly wooden casings for doors and windows, blackboards, etc., improves the appearance of rooms, makes them more sanitary, easier to keep clean — and actually saves money.

**Be sure to get this data**

We have developed a special type of "Expansion" Casing (No. 9) for blackboard trim. It has been used with great success on some of the finest new schools in the country. Let us show you how it can be adapted to your plans — for new schools or for rebuilt rooms. Our engineering service is offered without cost or obligation. Usually Milcor can improve the building, make it safer, and at the same time show you a saving.



## Your School should be made firesafe!

FIVE school fires per day — nearly forty every week — almost two thousand each year! Millions of dollars worth of property destroyed — education is hampered — hundreds of thousands of children and teachers are endangered! Many are killed!

If you are planning a new school building, insist on firesafe construction. If the building you are in now is not of firesafe construction, it can be remodeled into a safe building at comparatively little cost. Milcor maintains an engineering service division to help improve construction without undue expense. It will cost nothing and obligate you not a bit to consult Milcor. Write today and outline your plans.

MILWAUKEE CORRUGATING COMPANY, Milwaukee, Wis.  
Chicago, Ill. Kansas City, Mo. LaCrosse, Wis.

# MILCOR

## METAL LATH and METAL ROOFING for SAFETY

(Continued from Page 90)

very profitably be undertaken by some of the large agencies equipped for this type of work. Many things making for a more exact comparison should be included. A study of wider scope would enable a more exact comparison within a narrower range of pupil enrollment. The fact that the size of the community does not have a great bearing on enrollment was strikingly brought out as the schools range in size from an enrollment of 365 to 1,637. Part of this discrepancy can be accounted for because of the different number of grades housed within the high school in various places.

persons able to handle both types of work. A stenographer is almost indispensable in a high-school office and there were only five schools of the 67 who had clerical help untrained for stenographic work.

This table should be read as follows: In the 1150-1249 class there are a total of seven schools, two with only one person in the office, four with two people and one with three people in the office. Five of these schools had one stenographer and two had two stenographers in the office; three of the schools had no clerks and four had one clerk in addition to the stenographers.

many of these advisers devote only a part of their day to advisory work, and spend some time in class-work. The thing of interest in this study is that 18 of these schools supplement their office help with assistance from the dean of girls.

Eleven of the 67 schools use teachers for clerical work. Three of these schools obtain one teacher-hour of help, one obtains three teacher-hours, one school gets four teacher-hours and another five teacher-hours. Five schools do not state how much help they obtain, although they state that they use the faculty for clerical help.

TABLE IV. Girls' Advisers in High School						
		Having an adviser		Assist in office		
Enrollment	Yes	No	Yes	No	Total	
365	1	0	1	0	1	
450-549	3	2	2	0	3	
550-649	12	9	3	1	12	
650-749	5	2	3	1	5	
750-849	9	6	3	1	9	
850-949	9	8	1	5	9	
950-1049	7	7	0	4	7	
1050-1149	2	2	0	1	2	
1150-1249	7	2	3	2	7	
1250-1349	5	4	1	0	5	
1350-1449	1	1	0	0	1	
1450-1549	5	4	1	2	5	
1550-1649	1	0	1	0	1	
Total	67	50	17	18	32	67

Table III shows the type of help in the offices of schools of varying enrollment. Only two schools in the group were without any stenographic or clerical help, one a school of 618 students, the other enrolling 578 students.

Fifty of the schools have girls' advisers, 17 are without a person of this title. Only 18 of the schools having such an office use this person as a

Enrollment	Yes	No
365	1	0
450-549	2	1
550-649	4	8
650-749	5	8
750-849	1	8
850-949	9	4
950-1049	2	3
1050-1149	2	2
1150-1249	5	2
1250-1349	4	1
1350-1449	1	1
1450-1549	5	1
1550-1649	0	1
Total	39	28

Table V shows the extent to which students are used to supplement the office clerks. Various schemes are used by these schools using students. Some pay the students a small sum per hour for this work, other schools grant partial credit to the best commercial students for help in the office, still other schools free commercial students from class appointments to do office work. A few of the schools send students from the study hall to the office for this work.

Many of the schools find the student help satisfactory. Much of the work that is handled in the high-school office is confidential and should not be made open to any member of the student body. Grade records and disciplinary records particularly should never be worked on by students. Many letters are of such a nature that student stenographers should not handle them and in filing there is the constant temptation to read other material, so that help of this nature needs close supervision if it is to be used at all.

(Concluded on Page 94)

We have classed office help into stenographers and clerks. By clerks we mean people not trained to do stenographic work; the stenographers are

means of clerical help in the office. No study was made of the amount of time the girls' adviser devotes to the duties of her office. It is possible that

**MILCOR**  
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Proof Metal Roofing



*Milcor American Metal Tile* — a neat, precise looking metal roof that renders unequalled protection against storms, lightning and fire.



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"Modern Modes in Better Plastering" will give you a new conception of the true value and economy of Milcor metal lath construction methods.



"The Milcor Architectural Sheet Metal Guide" features many products essential to school safety, in addition to metal tile roofing. Both books will be sent on request — FREE.

Many schools have adapted these books to class study because of the important data they contain.

TABLE III. Clerical Help in the Principal's Office				
Enrollment	Stenographers	Clerks	Total	
	0	1	2	0
365	0	1	2	0
450-549	1	2	1	0
550-649	4	8	2	0
650-749	5	8	2	0
750-849	1	8	2	0
850-949	9	4	2	0
950-1049	2	3	1	0
1050-1149	2	2	1	0
1150-1249	5	2	4	0
1250-1349	4	1	2	0
1350-1449	1	1	0	1
1450-1549	5	2	1	0
1550-1649	1	0	1	0
Total	8	54	4	0
		34	25	7
			2	35
			21	21
			8	8
			1	1
			67	67

means of clerical help in the office. No study was made of the amount of time the girls' adviser devotes to the duties of her office. It is possible that



The picture at the left shows what ordinary wear does to unprotected steps. At the right is shown a stairway in a school, protected with Wooster Safe-Groove Treads.

## *Stairs are the First Part of a Building to Show Wear*

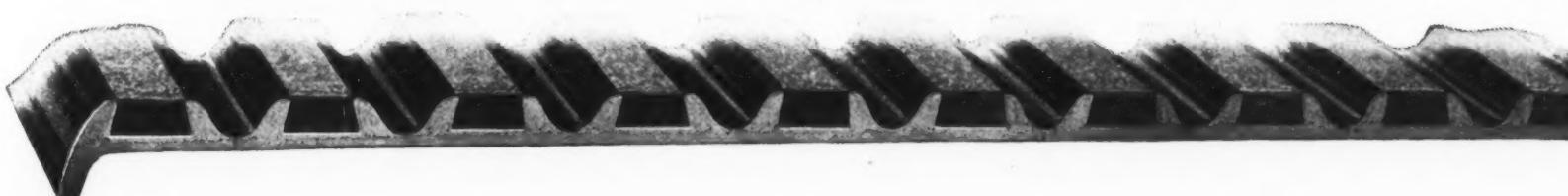
THE STAIRWAYS in any building get the hardest wear and show the first signs of deterioration. The constant friction of thousands of feet, quickly disfigures unprotected steps. Stairways protected with Wooster Safe-Groove Treads are free from disfiguring wear, safe to walk on and are an all-around economy.

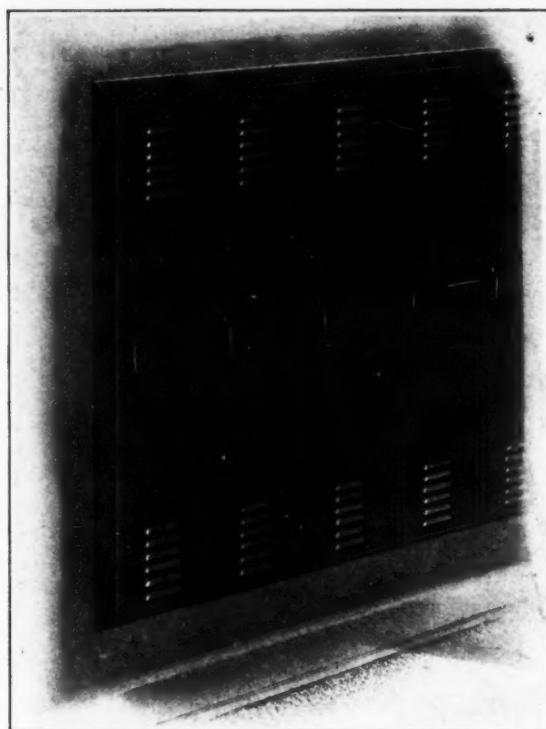
The area of the ribs of carborundum anti-slip material increases with hard

wear, presenting always a firm, safe footing. The deep, narrow grooves catch and hold matches, pencil stubs and other stairway debris, keeping the tread always clean. Wooster Safe-Groove Treads are easily and quickly installed on new or old stairs of concrete, steel, wood or any material. They are attractive in appearance and economical in service.

THE SAFETY STAIR TREAD COMPANY  
P. O. BOX 198-C, WOOSTER, OHIO

**WOOSTER**  
SAFE—GROOVE STAIR TREAD





**All-Steel-Equip  
Company**

## Recessed Lockers

### Save Space — Insure Service

**R**ECESSSED Steel Lockers offer the maximum service in locker installation. Sunk into the corridor wall in your school building, they occupy a minimum of space and give a neat, smartly finished appearance to the corridor itself.

All-Steel-Equip Company installation of recessed lockers insures a maximum of service. A "beveled" molding around the locker sections fits perfectly against the wall. When the screws which hold it in place are tightened, the edge of the molding is drawn flush with the wall, the flanged edge giving the molding stiffness and preventing that "wavy" appearance so often seen.

#### **Sturdy Frame**

Locker frames have angle uprights full  $\frac{1}{8}$  inch in thickness. Cross channels are of No. 16 gauge steel. This makes steel frame both sturdy and firm. The corners of the frame are all riveted with two countersunk rivets, giving a smooth flush joint, and making practically a one-piece frame. No rivets or bolt heads are visible to mar the smooth appearance of the finished product.



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CLEVELAND—328 W. Superior St.

KANSAS CITY—403 Hall Bldg.  
LOS ANGELES—800 N. Spring St.  
MILWAUKEE—141 E. Wisconsin Ave.  
DETROIT—231 Iron St.  
TOLEDO—1825 Vermont Ave.

(Concluded from Page 92)

TABLE VI. Hours the Principal Spends in Clerical Work						
Enrollment	0	1	2	3	4	Total
365 .....	1	0	0	0	0	1
450-549 .....	1	1	0	1	0	3
550-649 .....	0	4	5	0	0	12
650-749 .....	1	1	1	0	1	5
750-849 .....	1	2	2	0	1	3
850-949 .....	2	1	3	0	1	9
950-1049 .....	2	2	1	1	0	7
1050-1149 .....	0	0	0	0	2	2
1150-1249 .....	2	2	0	1	0	7
1250-1349 .....	2	1	2	0	0	5
1350-1449 .....	0	0	1	0	0	1
1450-1549 .....	2	0	1	0	0	3
1550-1649 .....	0	0	0	0	0	0
Total.....	14	14	16	4	2	64
No reply .....						3
Total .....						67

The above table indicates the estimate the various principals place on the amount of time they devote to clerical work daily. This is only an estimate, and fourteen of them frankly indicate they do not have any basis on which to judge the amount of time devoted to this type of work. Many principals, no doubt, have confused necessary administrative work with work of a purely clerical nature. The necessary planning and dispatching of the routine details each day, naturally, should be eliminated, and only such time actually taken up with recording grades, tabulating facts, answering routine questions, signing excuses, issuing supplies, etc., should be included under the head of time devoted to clerical work.

Fourteen principals in this list devote no time to clerical details, 15 spend an hour a day, 16 spend 2 hours a day, 4 work 3 hours a day and 2 work 4 hours at this type of work. The communities where the principal is burdened down with letter writing, transcribing credits, recording grades, issuing supplies, etc., to the extent indicated are not receiving the type of service for which they are paying.

It is strange that these communities will pay from \$1 to \$4 an hour for the services of a principal and then make it necessary for him to spend his time on work that could be done at a rate of 50 to 60 cents an hour. This is an example of poor business administration and if it is the fault of the local principal in that he fails to call it to the attention of his board of education, or his fault in that he desires to spend his time in this manner,

then, in either case, he is not the man for the job. However, most of these men do this work from necessity and not choice, realizing that each hour they spend in this manner is a dead loss but that the work must be done and as no one else is there to do it, they must.

Thirty of the 67 principals also indicated that they would obtain better results with more help, while 7 of them indicated that better results were doubtful even if they had additional help. These latter may have been afflicted with a doubtful type of assistance; poorly paid, immature clerks or student help, working without remuneration, in which case a better quality of help would be of more assistance than a greater quantity.

The position of clerk in the high-school office is an important one as frequently in the press of duties, authority will be assumed or delegated which is beyond the ability of the clerk. The result is trouble, as discipline improperly handled by the assumed authority of a clerk will result in dire consequences for the school and the principal. Many things handled in the office are of a confidential nature; many delicate matters are of necessity known to the clerk, and an indiscretion in repeating any such matters will result in injustices to the students concerned and in much difficulty for the administrator.

Many ingenuities were resorted to in order to do the work necessary in the various offices. Many schools called on the commercial department to assist both for typing and mimeographing. One principal told at length how the head of his commercial department had been criticised by the superintendent because of not turning out a sufficient amount of mimeographed material for the various departments of the system. In order to arrive at the exact state of affairs the head of the commercial department kept a record of the number of sheets of mimeographed material his department had produced and upon checking at the end of three months found that he had printed 30,000 sheets, or more than 300 sheets a day.

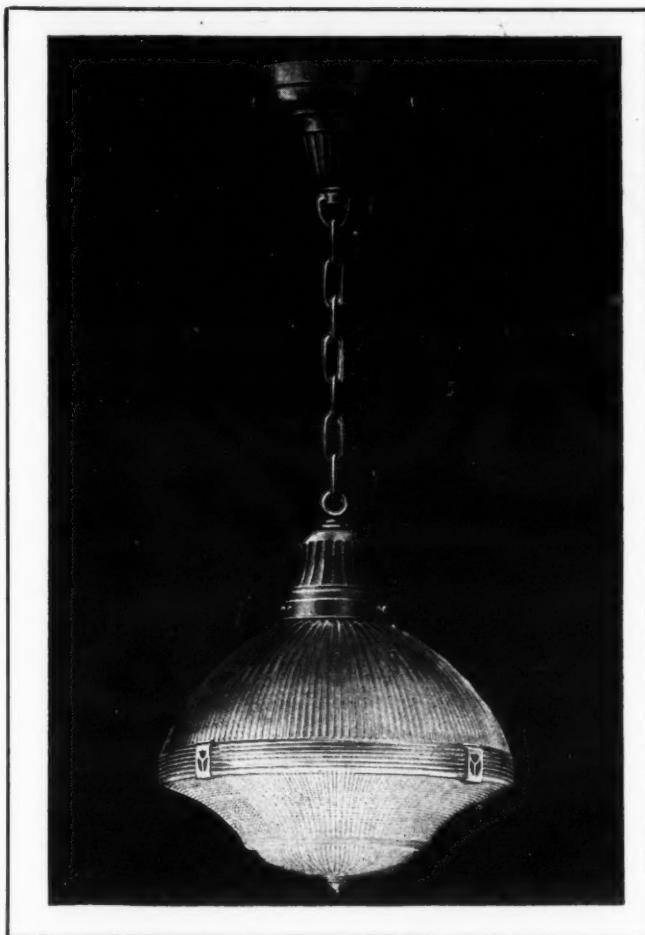
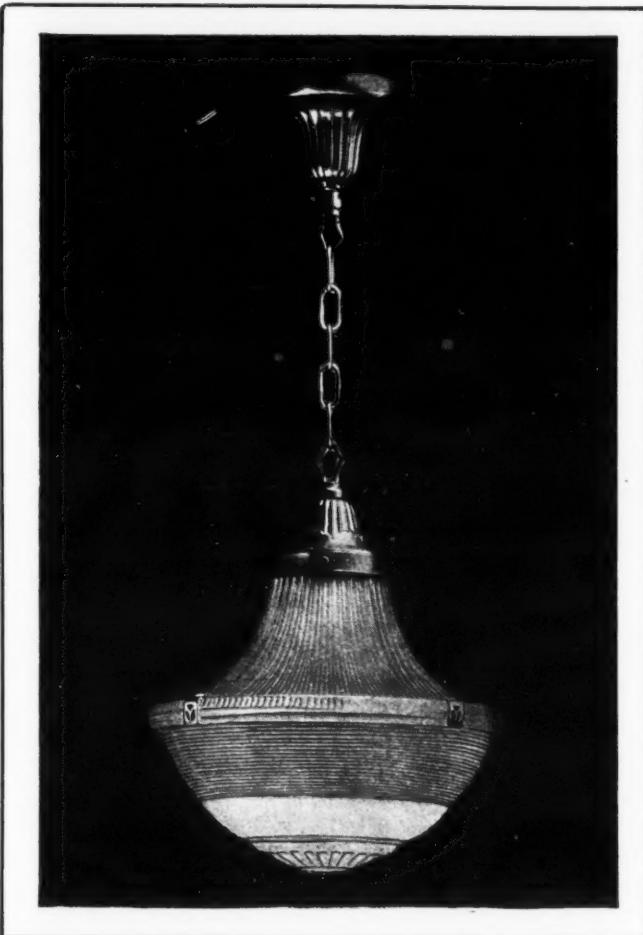
#### **Ways of Securing Office Help**

Some schools used teachers for clerical help by combining classes at mid-year and using the teachers' time so released in the office. Where a teacher has had stenographic or clerical training, the highest type of assistance is obtained; it might be noted, however, that this is the highest priced type of help.

One principal, with no clerks and an enrollment of 578 students, reports that he only spends two hours in clerical work but that he has his records simplified. Simplification, it is certain, is the aim of all principals and regardless of the amount of clerical assistance available all records should be simplified as long as efficiency is not sacrificed. Another principal offers a course in office training and uses the students in office work for their practical experience. Credit is given for this course but no other remuneration. Another school uses an office-boy system which relieves the principal from running errands about the building. Boys spending their off periods in this kind of work receive no remuneration in this system.

In conclusion it would seem that a slight outlay for additional clerical help would make for much greater efficiency in most high schools. There is nothing so discouraging to an executive who has the responsibility of a large student body on his shoulders and who has the outlining of plans for the entire organization, the burden of leadership in professional thought, as to be always oppressed with the knowledge that clerical details must be cared for, to know that they never can quite be cleared away and that these details will not be cared for unless he does it. This form of economy only results in a loss to the community. Many principals would launch out in advanced professional work in an excellent testing program, in a broad study of personnel, for example, if they only knew how the essential records were to be handled. Losses will always be hidden from individual communities unless they allow their principals to demonstrate by results just what they could do with more help. Possibly, however, it is not a question of more help, but of better help. Again, it is possible, that principals as individuals are unwilling or unable to lay down a definite program and demonstrate what they would like to do if they had efficient assistance. On the other hand, they may never have brought to the attention of their superiors the fact that they are spending so much time in clerical work with the consequent loss to the community. May these principals develop a proper advertising sense and be enabled to present their cases properly. In the final analysis the only thing that should have any bearing on the problem is the efficiency of the school system and the educational development of the boys and girls under the charge of these men.

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## School Equipment from the Manufacturer's Standpoint

(Concluded from Page 40)

guardian of the "Deestrick" sanctuary: "Had the Lord ever intended man to ride at the frightful rate of fifteen miles per hour he would have revealed it in His Holy Scriptures."

### Stubborn Tradition and Purchasing Methods

It is supposed, therefore, that the schoolhouse was, in the beginning, regarded as a by-product of the church and in truth, it was. For many years districts unable to recruit a teacher drew on the services of the local minister to give instruction in the fundamentals. Doubtless, these men had an influence upon the content of the New England primer and of many subsequent widely used textbooks.

If today educators have reason to deplore the hostility of certain sections of the country to the teachings of modern sciences in the schools, if they have occasion to complain of the cumbersome legal machinery by which school administration is effected, if they have reason to vigorously protest against the impecunious pleas of school boards, then they have reminders that the school has, if not antiquity, at least stubborn tradition behind it.

Moreover, they have a gauge by which to measure the feelings of manufacturers of equipment toward the unwarranted retention of purchasing systems which most business institutions have relegated to the dust bin. For it is too often apparent that the school is not yet taken seriously by the community as a business enterprise, as well as cultural, and it is too frequently obvious that administrators of school plants with responsibility for an investment of hundreds of thousands of dollars in buildings and equipment are motivated by politics, tradition, sentiment, or prejudice rather than by sound business economies.

Modern school architecture now amounts to a new science. It is distinctly American in conception. It has become beautifully practical. It has poise, character, and charm. Many a hamlet now boasts an architectural triumph in the form of a schoolhouse outrivalling in purity of line and ornament even the postoffice, once regarded so affectionately as a testimonial of congressional appreciation. There is no substitute for self-reliance or community self-respect. But one of the yet unsolved riddles is the inability of a school board to appreciate the relationship between a noble structure and commensurate equipment. It reflects a tendency of complete evening dress for the body, with carpet slippers on the feet. Nor is the allusion far fetched.

The origins of frugality are co-existent with the beginning of schoolhouses. Buying habits have been inbred. In speaking of the "prudential committeeman" an early writer outlined his strenuous tasks: "It was his duty to buy the water pail, the dipper and the broom, to see that the woodshed was filled and the premises kept in repair." There are many yet whose vision has not extended beyond the rim of the tin dipper and whose loyalty to the new generation is emotionally fixed in their own past and the poetry of the "Old Oaken Bucket."

### Nothing New in Desk Design?

We hear today the echo of complaint that there has been nothing new in the way of school-desk design in twenty years. Well, there have been no departures in the design of office desks for the same period. Seating in railway coaches has made no marked changes.

Who has changed design in firearms since Miles Standish used the blunderbuss and Captain Kidd the pistol? They have been refined and the mechanism improved—but design is a fundamental. When fundamentals are correct,

innovations are rare and short-lived. And many innovations have come and gone in school equipment in the past twenty years.

A more serious retardation in school development, a need greater than for new designs in school desks is the need for new practises in buying. The manufacture and sale of school desks for instance is conducted in the face of limitations which today are insurmountable. They are the precise products of an educational determinism—they are part of the system.

Recent surveys have been made to apportion the percentages of equipment and its cost, based upon building costs. Building costs as related to city and country schools, junior high schools, and high schools, and the kind of equipment vary among the different types of schools. Yet building committees in some miraculous manner are frequently either ignorant of this information or else ignore it in the proposed bond issue. Later when the question of equipment comes up for consideration, it is dismissed summarily with a final "We have no money for equipment"

"The old equipment will have to do." To use a phrase of the street, the community has a schoolhouse "all dressed up and no place to go." Imagine, if you can, any of this purchasing committee buying a new automobile with old tires or a secondhand motor. Yet this is the way of the bid system.

### The Cult of Cheapness

Where funds for furnishings are limited, other resources are seldom reviewed or investigated by the average board of officials who think there is but one resource left. "And" says the committee or board, "Let's get all the desks we can as cheap as we can." Then follows a long series of gestures implying wisdom in selection, when in reality the only point involved is a choice between the least of the evils found in any and every commodity tendered for use on its claim for being the "cheapest." In cases of this kind, and they are numerous, the integrity of the house behind the product is of little consequence, salesmanship is of little avail, the character of the product counts for little or nothing. The paramount question is price, and in the end, a board gets what it pays for—never more—usually less, and in a few years' time, now thoroughly skeptical, the antics are indulged in all over again—to provide replacements.

The community in need of a new school usually needs new furnishings to equip it. If it is good policy on the part of a business enterprise when it remodels its plant to install the last word in modern equipment, why is it of less consequence in the case of a schoolhouse? Unfortunately the school is not always regarded as a strict sense as being a business institution. But it is. It parallels in every sense of organization any corporation now functioning in America and its investment in many instances is much greater. This fact is certain—no product now being produced in the hum and din of modern industry is so vital to the needs of a nation as the products being graduated from the schools. Let this output become tainted in the course of production and civilization is drinking hemlock.

### School-Desk Manufacture

The school-seating industry has never been spectacular in any of its claims. It has had little, too little, to say for itself. It has been accused of shortcomings for which it cannot be held responsible. But it may ask, "Why, when building overhead mounts to \$400 per pupil, should so much alarm be manifested in buying a school desk suitable to the costly space it

occupies?" Why? Here is the nubbin of the question.

If school-desk design had been fundamentally changed in the past twenty years, schoolhouses would need to be built by the acre. First of all then, the school desk must be compact. It is an economic necessity. Schools are built today to house pupils just as apartments are built to house huge masses of population. A premium is put upon space. The school-seat manufacturer must adapt his product to these conditions. There is no alternative—no elasticity. Here are the building plans! The ingenuity of the manufacturer is strained to pass the camel through the needle's eye. In a few cubic feet of space he must provide a compact unit possessing comfort, hygienic dimensions, a high percentage of efficiency for storage room and working area. Moreover, it must be durable, exceptionally so, to withstand the wear and tear of that most destructive period—boisterous youth.

### Evolution of the Industry

Picture again the description of those early school seats. Barbaric, ugly, and crude, fashioned with hand saw, augur, nails, and plane. Finally cast iron was used for standards, heavy, clumsy, breakable. Wood parts have passed through six stages: First, pine, because pine was handy and oak was hard; then cherry, when Pennsylvania lumber was commercially available; and as cherry became rare beech was alternated, slat fashion; then beech and maple. Oak was tried out because of its figure and solidarity, but being exceedingly porous it was quickly abandoned in favor of maple, which is now the accepted wood. Steel ultimately displaced cast iron in standards. Steel brought refinements and durability impossible to achieve with cast iron. It made possible wide variation in design, and in the present-day movable desks with separate swivel seats are available and entirely new.

The recent ambition of the seating industry has not been so much an attempt at newness and novelty as to perfect—to amplify, to refine, and to standardize output in order to lower cost. These are the factors that today claim the manufacturer's attention. Under existing conditions design is reasonably well fixed in the several types which are generally accepted as standard equipment.

Those who complain about the commonplace or limitation in design of school seats may be somewhat compensated to know that one manufacturer alone has no less than 185 variations in sizes, combinations, and types of pupils' desks. With the special types and finishes, which this single company is prepared to furnish, the count goes well over 200. This is the line of only one factory of all that are in the field.

### Research a Present Factor

Again, guesswork today is eliminated. School seats are fashioned and sized after critical study of pupils' needs. Not less than 30,000 pupils of all ages, were actually measured by the research adviser of one seating company in order to correctly determine the proportions of the modern desk in each of its several sizes. Every precaution is taken to insure health while sitting, and promote efficiency while studying. And yet—with all this outlay in development, the years of painstaking research, the study of posture effect while in the schoolroom on physical development of the growing child, the superiority of wearing qualities, the \$400 desk space often draws a nondescript seat, practically parentless because manufactured as a side line by some factory mainly devoted to other merchandise, and sold by an itinerant agent who has failed at every other endeavor and "guaranteed for 25 years," but for what and why is not explained. And all because—just because—"cheap price" is the fetish of some boards who do not understand that adaptability to use and long life without expense for repair are essential factors in economy.



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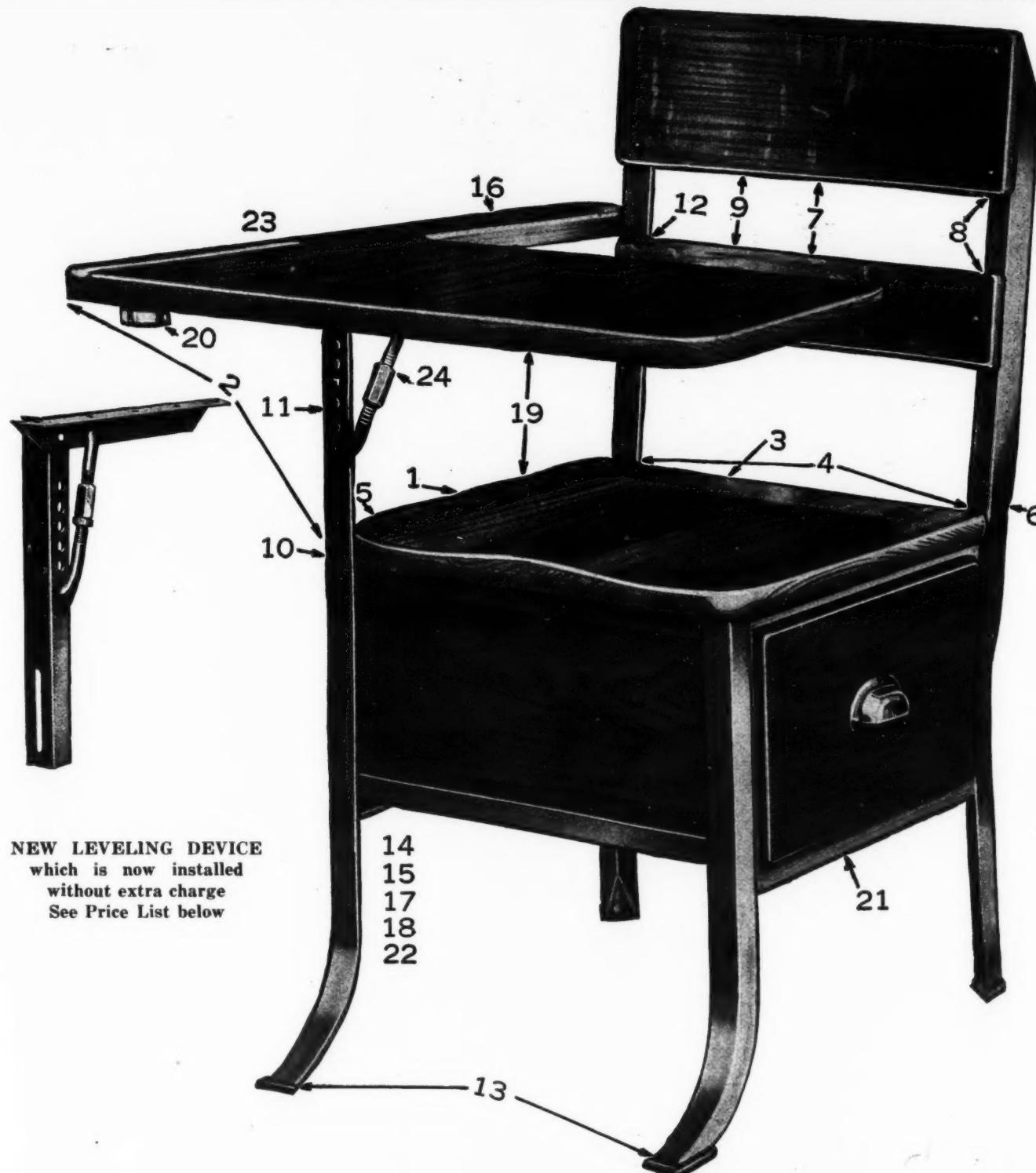
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8. Back adjustable in height.
9. Back of solid quartered oak.
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18. Durability—Indestructible steel.
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# BUILDING NEWS OF THE SCHOOLS

**SCHOOL-BUILDING CONSTRUCTION  
HEAVY**

—The U. S. Bureau of Education in a special report shows that the construction of schoolhouses throughout the country is active in cities of ten thousand inhabitants and an expenditure of nearly \$500,000,000 has been authorized within the past two years. Adoption of the junior-high-school plan in many cities has relieved the tendency toward congestion in elementary schools and high schools.

Of the 404 cities of 10,000 population or more reporting to the Bureau, 281 erected new buildings at an expenditure of \$245,811,715, or an average of \$874,775 for each city. Out of the \$245,811,715 there were erected 432 elementary, 165 junior-high, and 127 senior-high school buildings, or a total of 724 buildings, at an average cost of \$399,519.

Philadelphia was cited as an example of the progress made in schoolhouse construction in the larger cities. From September, 1925, to October, 1926, nine buildings, including two additions, were completed, which provide accommodations for 12,910 pupils. Fifteen buildings are under construction, including two additions, which accommodate 23,106 pupils. Part-time sessions in the city were reduced from 40,219 cases in June, 1923, to 6,193 in October, 1926.

Of the 404 cities reporting, 67 have some of the elementary-school children and 19 some of the high-school pupils on part time because of a lack of school buildings. Within the biennium, 55 cities reduced the per cent of elementary pupils and 29 the per cent of high-school pupils on part time.

Fourteen of the 55 cities eliminated part-time sessions entirely in the elementary schools, and 16 of the 29 in the high schools. In some cities the high schools have become more crowded than the elementary schools, owing to the fact that more children seek high-school education today than was the case a few years ago.

**BOSTON SCHOOL BUILDINGS CLASSIFIED**

As one of the bases of determining the pay of custodians, all schoolhouses in the city of Boston have been classified by order of the school committee. The classifications are as follows:

Class A—(1) buildings in which are installed fans and engines or motors for the main ventilation by the plenum system. (2) Buildings in which are installed fans and engines or motors for the main ventilation by the exhaust system. It is understood that buildings under this classification containing fans and engines, or motors, for the main ventilation must be in a condition suitable and ready for operation. (3) Buildings which are

heated and ventilated by the type of system commonly known as a unit system of heating and ventilation.

Class B—(1) Buildings heated by steam or hot water, but without fans, engines, or motors for the main ventilation. (2) Buildings heated wholly by furnaces, but with fans and motors for the main ventilation by the plenum system. (3) Buildings heated by furnaces or stoves and without fans for the main ventilation.

Buildings in which there are installed two types of heating and ventilating apparatus of substantially equal importance will be classified according to the superior type of such apparatus.

The classifications of buildings may not be raised above that determined by the main heating and ventilating plant in consequence of the type of such apparatus installed in sanitaries or in addition to the main building containing not more than three rooms.

**SCHOOL BUILDING NEWS**

—The citizens of Niagara Falls, N. Y., have approved a bond issue of \$1,257,000 for a three-year school-building program. The program calls for the erection of an administration building, a new elementary school, a vocational school, and three additions to existing school buildings.

—Lakeville, N. Y. The taxpayers have authorized the acquisition of a site and the erection of a twelve-room school building. The building will be two stories in height, with an auditorium and a gymnasium, and will cost \$325,000.

—Newburgh, N. Y. A bond issue of \$240,000 has been approved for the erection of an elementary school.

—New school buildings costing \$3,000,000 and providing accommodations for 4,000 pupils will be completed this year at Syracuse, N. Y.

—The voters at Middleville, N. Y., have approved a bond issue of \$150,000 for the erection of a new school.

—The new junior high school at Arlington, Mass., will be a building of two stories and ground floor, and will include an academic or classroom section, and an assembly hall and gymnasium, forming a T-shaped structure. The building will be erected from plans prepared by Mr. Frank Irving Cooper, of Boston.

—A new schoolhouse to be erected at Chicago will be named the Hugh Manley school, in memory of a former janitor and engineer of the Moos school, whose heroic effort to protect the lives of several hundred children there three years ago was successful, but resulted in his own death. A boiler pipe burst in the engine room and water poured forth in a stream, threatening to empty the boiler, which probably would have burst if the flow had not been checked. Manley was the only one present who had the courage to face the stream of boiling water and shut it off.

—Raleigh, N. C. A building program comprising one high school, four elementary schools, and one

addition, was completed this spring at a total cost of approximately \$1,050,000. A new senior high school will be erected at a cost of about \$500,000.

—The destruction of a school by fire has brought to a head the necessity for some action looking toward the replacement of the building by the board of education of Sacramento, California. The board assigned to Supt. Charles C. Hughes the task of estimating the general housing needs of the school district. It was brought out that the growth of the city has been phenomenal and as a result the school department is obliged to utilize a number of bungalows to care for the overflow. The present population is estimated at 105,000, which is a gain of 40,000.

As a result of his study, Supt. Hughes has presented a number of recommendations relative to a new building program. The program comprises five schools and nine additions to present school buildings. A site for a second senior high school must be obtained as the present building has exceeded its capacity.

—Chicago, Ill. At a recent meeting of the board of education, authority was given for the appointment of a committee to inspect the latest progress in school-building construction in other cities. The committee was composed of Mr. T. Schmidt, chairman of the committee on buildings and grounds; Mr. J. E. Byrnes, business manager; Mr. J. C. Christensen, architect, and Mr. Frank P. Sullivan, director of educational expenditures.

—Lockland, Ohio. Bids have been received for the construction of a nine-room addition to the high school.

—Hobart, Okla. The board of education has adopted a building program to cover the next ten years. A bond issue will be floated to carry out the necessary immediate improvements.

—Wellsburg, N. Y. A bond issue of \$225,000 will be voted for the erection of a high-school building.

—Lynn, Mass. The board of education has adopted a ten-year building program recommended in a survey made by a committee from Columbia University. The plan provides for the erection of schools to provide accommodations for an increased attendance over a ten-year period.

—Cincinnati, Ohio. Plans have been completed for the erection of a new school in the Cleves-North Bend school district, at a cost of \$100,000.

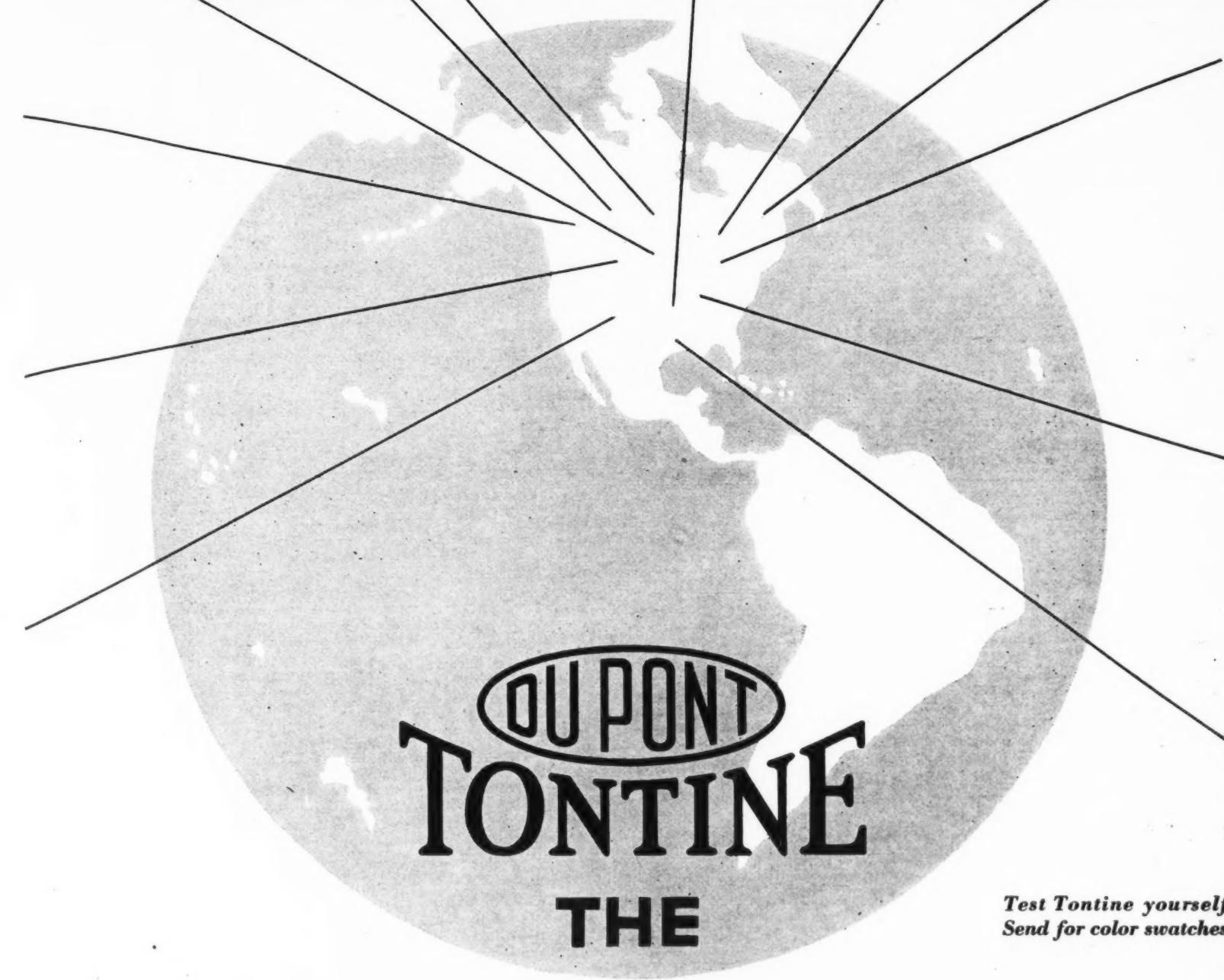
—Cleveland, Ohio. The board of education of Parma has taken steps toward the erection of a high school to cost \$500,000.

—Waynesburg, Ohio. The corner stone has been laid for a new high school to cost \$70,000.

—Boston, Mass. Construction work has been begun on the third most expensive high school, to be erected in the Hyde Park district. The building will be erected from plans prepared by Architects McLaughlin & Burr, Boston, and will provide accommodations for 1,500 students. The building will be completed in 1928, at a cost of \$1,250,000.

(Concluded on Page 102)

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Hundreds of schools are using this machine—to make their desks new—to resurface 800 to 1600 square feet of floor a day—and for all types of maintenance work.

120 desks made new in a day! That is the average performance of this wonderful machine.

Weighs only 22 pounds—connects to any light socket—works everywhere. Many schools are buying it just to have this fine industrial tool for instruction of their manual training classes.

(Concluded from Page 100)

—Ashtabula, Ohio. A centralized school will be erected for the east side, at a cost of \$125,000.

—The board of education of Evansville, Indiana, is facing a serious problem with the approach of the legal limit of bonded indebtedness and an incomplete building program. The board has a margin of only \$232,076 to finish the building program and is concerned about securing money to finish the work. During the three years that the building program has been under way, the school board has found it necessary to sell \$950,000 of bonds to finance the work. For the remaining two years of building, only \$232,000 in bonds may be sold before the legal debt limit will be reached. Under the program, a combined high-and-elementary school will be erected next year and the year following, an extensive program of additions and improvements will be undertaken.

—The voters of Haverford township, near Upper Darby, Pa., have been asked to approve a bond issue of \$300,000 for improvements and additions to the schools. In Lansdowne borough, the citizens have been asked to approve a loan of \$440,000 for the erection of a high school.

—Supt. S. E. Weber of Charleston, W. Va., has presented seven suggestions for new buildings or improvements to the school plant. The program provides for three elementary schools, a high school, an open-air school, and several additions to existing buildings.

—New York, N. Y. The board of education has taken steps to hasten the construction of new schools. An appropriation of \$13,572,300 has been requested of the city board of estimate for the financing of contracts for new buildings, the plans for which will be completed this summer. Additional appropriations for first prevention work and for the acquisition of building sites were also requested.

—New Bedford, Mass. An inquiry directed to the school custodians of the city has revealed that these men are unanimously in favor of the retention of the term custodian in place of the word janitor. The term custodian was adopted about three years ago in response to a request that the title be changed. It is the opinion of the custodians that the term is much more appropriate because they are caretakers of school buildings and not simply janitors. They are the foremen in the caretaking

phase of the schools just as the principal is the head of the educational work of the same school.

—Cleveland, Ohio. Bids have been received for the construction of a high school in Garfield Heights, to cost \$450,000. The building will be three stories in height and will be erected from plans prepared by Architects Fulton & Taylor.

—The school board at Sandusky, Ohio, has been asked to give the name of Lindbergh to the new junior high school to be erected for pupils of the upper grades. The supporters of the movement to name the school point out that such a name would serve as a great inspiration to the students both for the interest created in science and for the example of clean sportsmanship.

—Ast. Supt. Michael J. Downey of Boston has recently predicted that more money, instead of less, will be expended for schools as a result of the proposed survey of the school system.

—Wellsburg, Ohio. The voters have approved a bond issue of \$225,000 for a new high school. The building will be erected from plans prepared by Architect C. W. Bates, Wheeling, W. Va.

—The village of Batkins, Ohio, was in gala attire on the day when the new high school was dedicated. T. A. DeCurtins, the architect, formally turned the building over to the school authorities. President Roy McCullough of the board of education, accepted. County Supt. J. H. Henke delivered the afternoon address and Supt. C. W. Cookson of Urbana, was the principal speaker at the evening session.

—The \$5,000,000 fund voted by Kansas City, Mo., June, 1925, is about expended, according to President James E. Nugent. The sum of \$3,000,000 has gone into new buildings and \$1,151,114 is on contract. The balance will be held for emergency, and will not be devoted to any new projects for the present.

—The school committee of Revere, Mass., after considerable controversy, abolished the office of supervising janitor.

## THE VALUE OF A JANITOR'S RATING SHEET

To get the most efficient service from a school janitor is an important administrative problem of every school principal. A few years ago one of the janitors in the Fort Smith, Arkansas, schools suggested that he would like to have a rating sheet similar to that used for rating teachers.

There is still time to refinish, renew your desks this year. Get the full facts at once—and see how the Clarke can reduce your maintenance costs.

**Clarke Sanding Machine Co.**  
**Dept. G-7—3821 Cortland St., Chicago, Ill.**



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Please send full information regarding the Clarke Vacuum Portable Sanders  
 for school maintenance work    for manual training    for both.

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ADDRESS .....

CITY..... STATE.....

In line with the suggestion, Mr. C. E. Beard, principal of the Trusty, Parker, and Spradling Schools of Fort Worth, prepared a rating sheet in mimeographed form. The rating sheet has been found helpful in stimulating the janitor to his best efforts, and outlines in a definite way his work and what is required of him. The sheet has been issued in printed form in the July number of the Bulletin of the Department of Elementary School Principals of the National Education Association.

Under the plan, each teacher is required four times a year to fill out a blank by making a check in the proper columns. The grades are entered on a composite sheet. If there are a dozen teachers in a building it means that about that number of grades will appear in the columns following each item. The janitor is not shown the individual sheets from which the scores are made but is given a copy of the composite sheet.

The sheets are reproduced in quadruplicate form, one copy of which is given to the janitor; one goes to the superintendent of schools, one to the superintendent of buildings, and one is filed in the principal's office. A sample of the composite sheet, together with a typical rating of a janitor is reproduced below.

SCHOOL—PARKER.	Date October 26, 1926			
Janitor—Mr. J. L. Marts.	EXCEL-			
Quality of Work Done:	Poor	Fair	Good	Excellent
Sweeping .....	..	8	6	
Dusting .....	2	8	4	
Repairwork .....	..	8	6	
Making new things .....	..	5	3	
Removing waste paper .....	1	12		
Other things .....	3	4		
Care of yard .....	7	6		
Care of toilets, closets, etc. .....	1	5	4	
Mechanical ability .....	1	5	1	
Promptness:				
In answering calls .....	1	11		
In making repairs .....	4	9		
In other things .....	3	6		
Other Qualities:				
Seeing what needs to be done and doing it .....	2	7	4	
Interest and pride in work .....	6	68	108	
Willingness to do .....	..	14		
Making helpful suggestions .....	4	4	4	

Rated by Parker School Teachers.

—B. R. Stubbs is the new principal of the high school at Ada, Oklahoma.

—B. S. Moyle was reelected superintendent at Maquoketa, Iowa.

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UPKEEP  
EXPENSE  
is Built into  
LYON  
STEEL  
LOCKERS*



The V-shaped reinforcements and the spot welded corners make Lyon Steel Lockers the most rigid locker doors made

The locking device on Lyon Steel Lockers operates with a minimum of noise and is practically everlasting

IT is during the re-conditioning work of vacation time that the dollar and cents value of Lyon Steel Lockers becomes evident to school boards.

A glance down a corridor lined with Lyon Steel Lockers discloses that their alignment is perfect, that the doors close perfectly, that the enameled finish has withstood school-boy use.

Lyon Steel Lockers are held in line by their strong welded steel frames. The doors, most rigid of all locker doors, are held by hinges that do not spring under even the shoulder thrust of a man. The enamel must stand severe hammer tests.

Try one or all of the locks. Every one opens easily, and the locking bar stays up until the door is closed when it drops into place automatically with but little noise.

That locking device has operated perfectly after tests equivalent to 165 years of average use.

Year after year the upkeep costs on Lyon Steel Lockers are outstanding because they remain so consistently small. It is but natural, therefore, that one installation in a town leads to another as new schools are erected or old equipment is replaced.

In every part of the nation, Lyon Engineers have co-operated with school boards and their architects in planning Lyon Steel Locker installations of negligible up-keep cost. They will gladly work with you.



Write for literature on Lyon Steel Lockers and tell us about your plans and your requirements. Any help that can be given will be given without cost to you.

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American Portable Schools are never temporary. Conversely, they are staunch and sound, well insulated against heat and

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### THE TRUANCY PROBLEM IN MINNESOTA

H. F. Niehaus, Superintendent of Schools,  
Dassel, Minn.

The successful handling of truancy cases without recourse to the courts has been a problem with the writer and has led him to study methods followed by superintendents of schools in small towns of Minnesota.

Recently, a questionnaire was addressed to more than thirty schools, asking the superintendents to give their methods of securing the attendance of delinquent pupils.

The replies to the questionnaire showed that no definite plan of control is used by the superintendents. In most cases, the parent or guardian is warned of possible court procedure, after all other means fail to get the desired result. In only two schools arrests were resorted to in securing attendance. It was clear from the facts in the letters and from the entire spirit of the replies that superintendents are not anxious to go to court to bring an offending child and its family to trial.

Of those replying to the questionnaire, ten make personal calls at the homes of the pupils, urging the parents to send the children to school. Twelve send a legal notice calling attention to the non-attendance of the pupil and warning the parents that the matter will be taken to court. Ten superintendents send the names of the offending pupils to the county superintendent, or the county attorney, or some other county officer such as the welfare worker or the county nurse, who issues notices to parents. Two superintendents write personal letters to the parent or guardian, urging compliance with the law, and one superintendent sends a letter by registered mail. One superintendent talks with the pupil himself, and one gets favorable community action through articles on the subject in the local daily newspapers. A number of superintendents declare that nonattendance of pupils is a problem in every school which must be dealt with.

The questionnaire revealed the fact that the control of truancy varies greatly in different communities. For instance, the size of the school does not seem to be an index to the number of cases. One school with an enrollment of 318 reported 32 cases of truancy, or more than ten per cent. Several schools with enrollments of 150 to 300 pupils, had less than one per cent of truancy. One school having an enrollment of 550 pupils, reported 25 cases, or nearly

five per cent of truancy, while other schools having the same enrollment, reported only one per cent of truancy.

Under the laws of the State of Minnesota, the superintendent or supervising head of the school system, is responsible for the attendance of children between the ages of 8 and 16 years, and is compelled to require their regular attendance in school. In some cases, a personal letter to the parent is sufficient to bring results, while in other cases, considerable pressure must be brought to bear to secure the desired end.

The questionnaire showed that the methods used in securing regular attendance of pupils are not, in all cases, infallible. A good deal of trouble is due to pupils who are nearing the age of 16 but who are not legally old enough to go to work. The Minnesota law requires work certificates in certain instances, but this provision covers only a few cases in the village sections.

Another problem which faces the school official is the student who does not derive any real benefit from the school course and who thus becomes a disciplinary problem to the teacher and principal. Many students spend two or more years in a single grade, and at the end of that time, are not proficient in the work covered. These pupils eventually become the truants in the school system. They learn very little in the ordinary classroom and there is little or no opportunity for manual or industrial work suited to their needs. Such pupils become a bad influence on the other pupils, are difficult to discipline, and finally make up a large part of the truant and attendance cases. Since the law compels the attendance of these pupils until the legal age for leaving, it seems desirable that some provision be made for taking care of these cases so that they will become less of a burden to the teachers and superintendent.

The study brought out that very little of the time of teachers and administrative officials is taken up with the problem of truancy. The replies showed that of 8,000 pupils studied, only 123 cases of truancy were noted. This is less than one and one-half per cent. While these pupils are not entitled to an undue amount of the time of the teachers, yet they are responsible for a great deal of the disciplinary trouble. It is quite evident that a more efficient method of handling truancy in the schools must be evolved before the problem can be effectively handled in the future.

### AGE-GRADE DISTRIBUTION IN NORTH CAROLINA

The state education department of North Carolina has completed a study of age-grade distribution in the state for 1925-26. The study shows that in every year the state has 20,000, or about 4 per cent, of the white children in the under-age group, 270 to 290 thousand who are in the normal-age group, and 255 to 260 thousand who are in the over-age group. The larger number of white children are in the normal-age group, 51.1 per cent and it appears that the normal-age group has more than absorbed the increase in the total white-school enrollment. For the colored race, the children are not distributed so well. In 1925-26, there were 2,500 under-age pupils, 75,000 normal-age, and 177,000 over-age; or in percentages, 1.0 per cent, 29.5 per cent, and 69.5 per cent, respectively.

A summary of the reports shows that there were 564,114 white children and 254,625 colored children enrolled in the elementary and secondary schools of the state during 1925-26. In 1923-24, there were 116,077 white pupils enrolled in the first grade. Of this number, 59,854 were promoted to the second grade, leaving 56,223 repeaters.

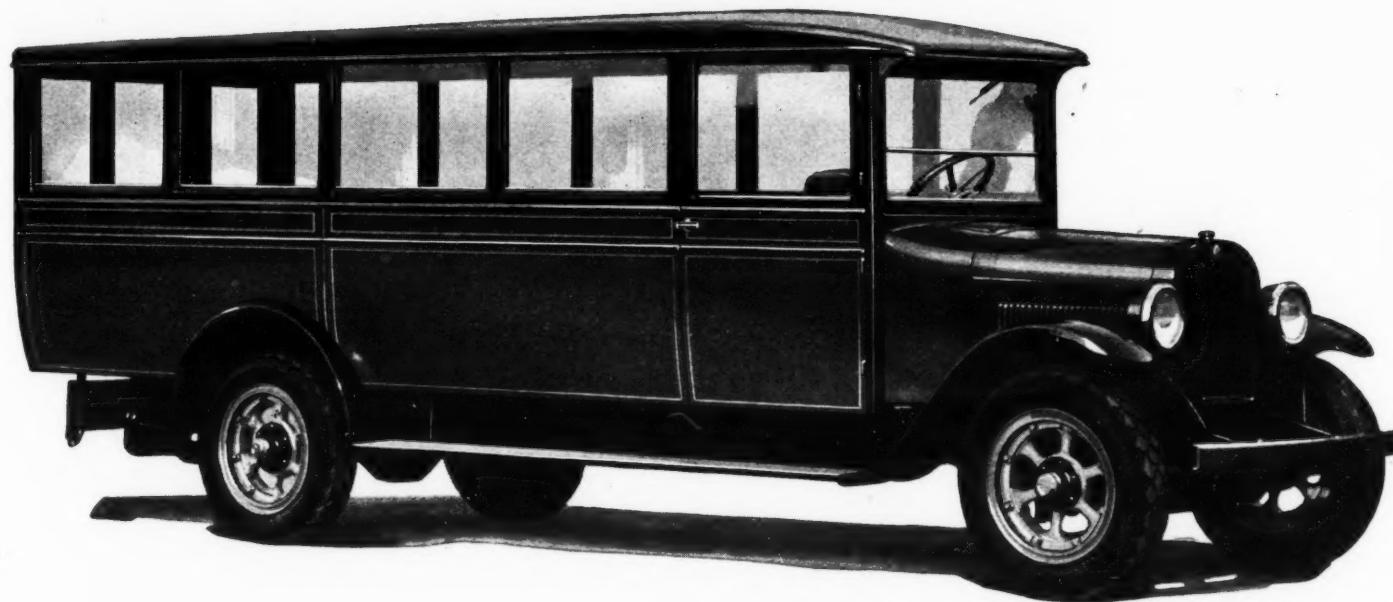
In 1924-25, there were 116,346 in the first grade. Of this number, 56,346 were in school in 1923-24, leaving a new enrollment of 60,123 in the first grade. Of the total 116,346, 59,594, or 51.2 per cent, were promoted to the second grade, leaving 56,752 remaining for 1925-26.

In 1925-26 there were 116,851 white children enrolled in the first grade, or a new enrollment after deducting the 56,752 repeaters of 60,099.

By the process of repetition of the grades from year to year, there is a large percentage of retardation or over-ageness. Forty-four per cent of the white children enrolled and 52.3 per cent of the high-school pupils were over age for their grade during 1925-26. In the colored schools, the per cent of over-ageness is still greater, approximately 70 per cent of the pupils.

In the state as a whole, 45 per cent of the white enrollment and 70 per cent of the colored enrollment was over age or retarded as much as one grade or more. In the rural white schools the per cent of under age and normal age and over age is about 50-50, whereas in the city schools, only 33 per cent were over age. In the colored rural schools, 72 per cent were over age and in the colored city schools 60 per cent were over age.

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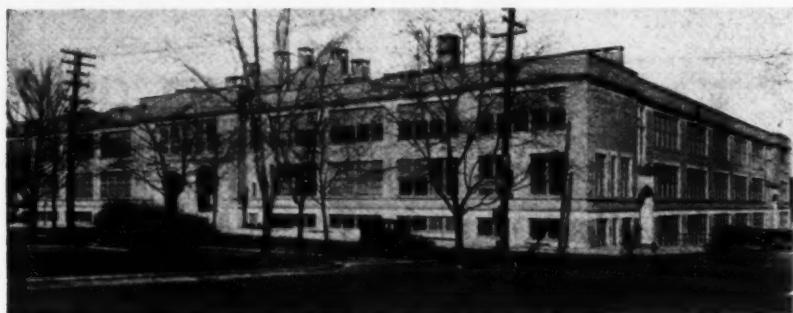
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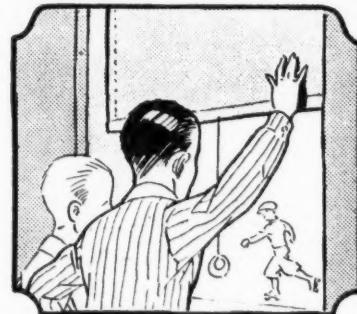
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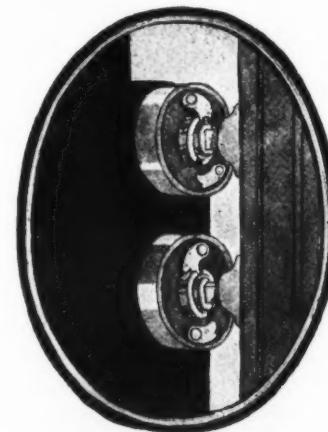


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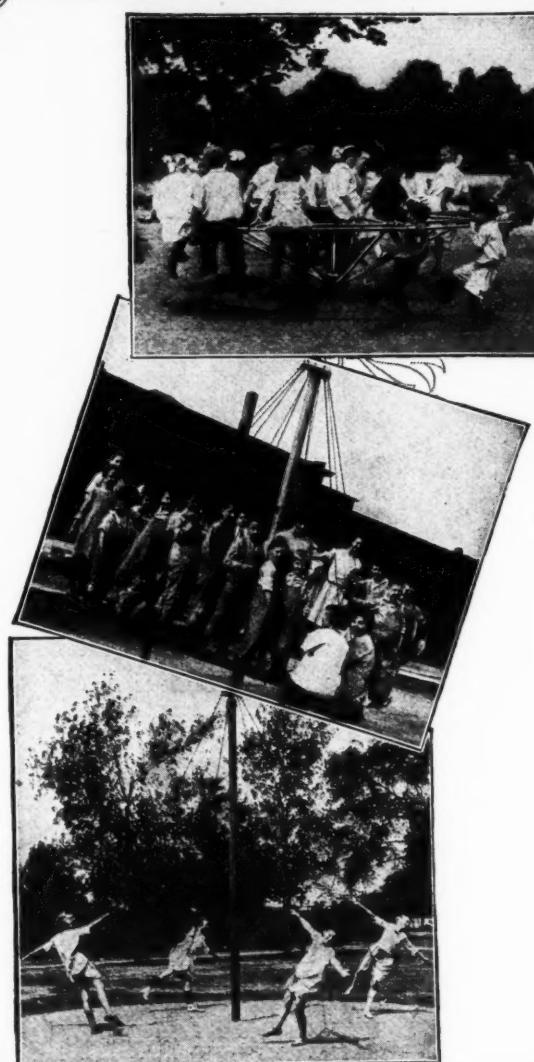
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## PERSONAL NEWS OF SUPERINTENDENTS

—The Elyria, Ohio, board of education reengaged Supt. R. C. Maston for a period of five years. Among the Ohio superintendents who have been reappointed are: A. D. Askins at New Washington, R. E. Holman at Leesville, H. J. Gary at North Robinson and W. E. Royer at Sulphur Springs.

—J. R. Barton was reelected superintendent at Oklahoma City, Okla., for another year at a salary of \$8,700, an increase of \$600 over last year.

—Z. N. Walters, the new superintendent of the Hillsboro, Ohio, schools was tendered a reception by the local parent-teacher association.

—Mrs. Rachel O. Yaw was reelected for two more years county superintendent of Perry county, Ohio.

—Mrs. Laura Leonard was elected superintendent of Dryden county, Nebraska.

—The reappointment of B. F. Kidwell as superintendent of the Russell, Ky., schools was attended with the biggest civic demonstration that city has ever witnessed. Five high-school teachers had filed charges against the superintendent. Then the citizens en masse marched upon the school-board meeting and demanded a hearing. The five accusers sent in their resignations and failed to appear.

—Supt. R. E. Offenhauer of Lima, Ohio., has been reelected for a five-year term, at a salary of \$6,000 for the first two years, and \$6,500 for the last three years.

—The Lakewood Post Medal for outstanding civic service has been awarded to Dr. C. P. Lynch, superintendent of the Lakewood, Ohio, schools for the last sixteen years. Dr. Lynch will retire at the end of the school year.

—Dr. C. R. Foster, first associate superintendent of schools at Pittsburgh, Pa., resigned on May 1 to accept the principalship of the State Normal School at Indiana, Pa. Dr. Foster succeeds Dr. John A. H. Keith, who resigned to become state superintendent of public instruction.

—Mr. H. F. Srygley has been reelected as superintendent of schools at Raleigh, N. C., following the completion of six years of service.

—Mr. G. A. Magnuson of Badger, Minn., has been elected superintendent of schools at Magnolia. Mr. Magnuson succeeds S. L. Johnson, who has taken the superintendency at Mabel.

—Mr. John Patterson of Xenia and Bucyrus, has been reelected superintendent of schools at Athens, Ohio.

—Supt. W. A. Wirt of Gary, succeeds Supt. L. C. Ward of Fort Wayne, as a member of the Indiana state board of education. The change is due to the fact that Gary shows a larger school population than Fort Wayne.

—Supt. C. W. Conrad of Morris, Ill., has been reelected for a third term.

—Mr. Paul K. Gardner of Edgewood, Iowa, has been reelected as head of the school system.

—Supt. R. J. Mullins of Tucumcari, N. Mexico, has been reelected for a two-year term, at an increased salary.

—Mr. J. S. Cushing of Medford, Mass., has been elected superintendent of schools at Middleboro. Mr. Cushing succeeds Charles Bates, who retires on a pension July 1.

—Supt. H. F. Allen of Lawton, Okla., has been reelected for a period of three years, and his salary increased to \$4,200.

—Supt. H. A. Perrin of Joliet, Ill., has been reelected and his salary increased to \$6,800.

—Supt. O. E. Balyeat of Sparta, Wis., has been reelected for a two-year term.

—Supt. Charles Bruner of Kewanee, Ill., has been reelected for the school year 1927-28.

—Dr. L. O. Cummings, assistant professor in the graduate school of education at Harvard University, has been engaged by the finance commission to make a preliminary survey of the Boston school system, to determine the nature and extent of a proposed inquiry by the commission. Among those who will assist Dr. Cummings are Supt. J. E. Burke, Business Manager Alexander Sullivan, and F. E. Slattery, chairman of the Boston schoolhouse commission.

—Mr. John Franklin West, of Pasadena, California, whose term expires June 30, has been appointed as deputy superintendent for one year.

—Miss Ethel Redfield has resigned as state commissioner of education of Idaho. Miss Redfield has been connected with the educational system of Idaho for twenty years.

—Mr. J. L. Bond, formerly state superintendent of Arkansas, has been elected county superintendent of Union county, to succeed S. E. Green.

—A bronze tablet was unveiled in the Elkton, Md., elementary school to the memory of the late H. W. Caldwell, who for ten years was superintendent of Cecil county schools.

—The position of associate superintendent of schools has been created at Cincinnati, Ohio, with the appointment of Mr. Edward D. Roberts, formerly assistant superintendent, to the office. The appointment is in the nature of a promotion in recognition of Mr. Roberts' faithful and valuable service. Mr. Roberts refused the superintendency of the San Diego schools last year.

—Orville Eichenberg, 76, died at his home in Monroe, N. Y., following an operation performed last October. Mr. Eichenberg resigned last August as superintendent of the second supervisory district of Orange county, a position which he had held for fifteen years. Mr. Eichenberg was principal of the Monroe High School for 25 years and had completed 54 years of service in teaching and supervisory work.

—Mr. Worthy H. Kinney, principal of the Lyons, New York, Union School for the last 39 years, retires at the end of the present school year. Mr. Kinney has completed 47 years of service in the schools of the state. He is particularly proud of the high school completed during his incumbency at a cost of \$450,000.

—Mr. Harrison H. Van Cott has been appointed as supervisor of junior high schools in the New York State Education Department. Mr. Van Cott was formerly at Schenectady, where he was connected with the public schools for twenty years. He is a graduate of the Oneonta Normal School and holds degrees given by Teachers College, Columbia University, and the New York State College for Teachers.

—Louis E. Bird has resigned as superintendent of schools of East Rochester, N. Y., after fifteen years of service. He is succeeded by Mr. J. E. Demorest of Elmira Heights.

—Mr. Albert H. Covell of Oneida, N. Y., has been elected superintendent of schools to succeed H. Claude Hardy, who has gone to White Plains.

—Mr. Glenn C. Harris of Hamburg, N. Y., has resigned. He is succeeded by Mr. F. J. Moffitt of Angola.

—Mr. Frank M. Smith of Johnson City, N. Y., has been reelected as superintendent of schools.

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Sectionfold and Rolling  
Partitions*

Mr. H. B. Eccleston has become assistant superintendent of schools.

—Mr. A. W. Miller of Scotia, N. Y., has been elected superintendent of schools at Glens Falls, to succeed Mr. E. W. Griffith. Mr. Miller's successor at Scotia will be Mr. B. W. Conrad, formerly principal of the Scotia High School.

—Mr. R. H. Spaulding, for the last three years superintendent of schools at Waterford, N. Y., has resigned. Mr. Spaulding plans to enter Columbia University to complete his studies for the degree of doctor of philosophy.

—Charles H. Cheney, superintendent of schools of the second district of Westchester county, N. Y., has been unanimously elected president of the Westchester county Schoolmasters' Council. A. Z. Boothby of Mamaroneck, was elected vice-president, and Matthew Lynaugh of White Plains, secretary-treasurer.

—Mr. Alvin W. Shepard, principal of Public School 12, Buffalo, N. Y., has been appointed deputy superintendent of schools, to succeed the late E. G. Hughey.

—Anne M. Goding, who has been connected with the city schools of Washington, D. C., for the last 44 years, will retire at the end of the school year. Miss Goding was a principal for 26 years.

—Dr. Harlan Updegraff, who recently resigned from the presidency of Cornell College, Mt. Vernon, Iowa, will give two courses in educational administration this summer at the University of California.

—Supt. W. G. Coburn of Battle Creek, Mich., has left for Europe. Mr. Coburn will conduct two European travel parties comprised largely of Battle Creek people.

—Mr. E. B. Cauthorn, assistant superintendent of schools at Dallas, Texas, has been appointed chairman of one of the ten committees of the N. E. A., which is to study the senior high-school problem.

—Supt. N. R. Crozier of Dallas, Texas, has been elected a member of the executive committee of the Department of Superintendence of the N. E. A.

—Supt. R. O. Smith of Maryville, Tenn., has been reelected for another two-year term.

—Mr. Worcester Warren has been reelected assistant superintendent of schools of Bridgeport, Conn.

—C. P. Davis of Cleveland, Okla., has been elected superintendent of schools at Stillwater. He succeeds W. H. Bishop.

—Mr. C. C. Nardin has resigned as superintendent of schools at Wapakoneta, Ohio.

—Supt. C. W. Mitchell, of Smithfield, R. I., has been given an increase in salary.

—Supt. E. L. Rouse of Scottsbluff, Nebr., has been given a life membership in the National Education Association.

—Mr. F. T. Baird of Boise, Idaho, has been elected superintendent of schools at Caldwell.

—Mr. R. E. Parrett of Wilmington, Ohio, has been elected superintendent of schools at Sedalia, to succeed Owen Jones.

—Mr. E. J. Arnold of Huntsville, Ohio, has been elected superintendent of schools at Rushcreek, to succeed E. C. Reed.

—Supt. J. E. Way of Waverly, Ohio, has been reelected for a three-year term.

—Supt. R. E. Offenhauer of Lima, Ohio, has been reelected for a five-year term.

—Supt. A. M. Hornby of Maumee, Ohio, is a delegate from Ohio to the meeting of the National Education Association to be held at Seattle.

—Supt. D. R. Rohrbach of Egg Harbor City, N. J., has been reelected for his nineteenth consecutive term.

—Mr. P. S. Eichelberger of Patchogue, L. I., New York, has accepted the principalship of the Collingswood, N. J., senior high school. Mr. Eichelberger succeeds H. E. Slager, who goes to a principalship at Glen-Nor, Pa.

—Supt. W. H. Baker of Rochester, N. H., will teach psychology in the Keene summer school.

#### News of Officials

—At the annual meeting of the board of education of Kenmore, N. Y., Mr. F. C. Sprickman and Mr. Harry Ball were elected as members. The new members were elected from a group of nine candidates and a total of nine hundred votes were cast. A movement to increase the membership of the board from five to seven members was defeated.

—Dr. Franklin E. Jones has been elected president of the board of education at Collingswood, N. J. Dr. Jones succeeds Dr. C. E. Vanderkleet who filled the office for the last fifteen years.

—Supt. R. M. Eyman of Lancaster, Ohio, has been reelected for another two-year term.

—Mr. C. E. Beach has been elected superintendent of schools at Auburn, Wash.

—Mr. N. M. Julian of Arthur, Ill., has been elected superintendent of schools at Lockport.

—Mr. M. N. Todd of Murphysboro, Ill., has been elected superintendent of schools at Lawrenceville.

—Mr. W. H. Rice of London, Ohio, has been elected president of the Central Ohio Schoolmasters' Club.

—Mr. B. E. Wheeler of Medora, Ill., has been elected superintendent of schools at Ashland.

—Mr. John F. Keating of Pueblo, Colo., has been elected president of the Western State College at Gunnison, to succeed Mr. Samuel Quigley.

—Mr. Stearns Cushing of Medford, Mass., has been elected superintendent of schools at Middleboro, to succeed Charles H. Bates.

—Mr. G. W. Greene of Buckley, Wash., has been elected superintendent of schools at Anacortes, Wash., to succeed E. D. Merriam, who has gone to Buckley.

—Supt. T. C. Moore of Roodhouse, Ill., has been elected for a two-year term, at a salary of \$3,000 a year.

—Mr. R. C. Smith of Macomb, Ill., has been elected superintendent of schools at Shelbyville.

—Mr. W. F. Waterpool of Marinette, Wis., has been elected superintendent of schools at Richland Center. Mr. Waterpool succeeds H. S. Bonar, who has gone to Manitowoc as superintendent.

—Mr. John Patterson has been reelected superintendent of schools at Athens, Ohio, for a fourth term.

—Mr. C. A. Hudson, principal of the high school at Fremont, Ohio, has been elected superintendent of schools, to succeed E. F. Schweikart.

—Mr. F. E. Ranck has been reelected as superintendent of schools at Tullahoma, Tenn.

—Mr. H. F. Allen of Lawton, Okla., has been elected superintendent of schools at El Reno.

—Mr. A. L. Threlkeld, formerly assistant superintendent, has been elected superintendent of schools at Denver, Colo., to succeed Mr. Jesse Newlon, who goes to Lincoln School at Teachers College. Mr. Threlkeld is a graduate of the Kirksville, Mo., Teachers' College and has filled a number of superintendencies in Missouri. Mr. Threlkeld, who will

(Concluded on Page 110)

# *That sea of faces*



THAT sea of upward-looking faces — those youngsters gathered together, sometimes indoors, sometimes outdoors—they *do* present a problem. How keep the light of interest alive in all those faces?

The Western Electric Public Address System goes far toward answering that question. With this system a child's small voice can be amplified to fill a hall. Voice or music, sent from a central point, can be distributed to any or every classroom. Concerts, speeches, lectures, calisthenics commands—the possibilities are endless. What could better arouse and hold the students' interest in their work?

Have a specialist tell you about the Public Address System—the nearby Graybar headquarters is the distributing center for this System—and for everything else electrical.

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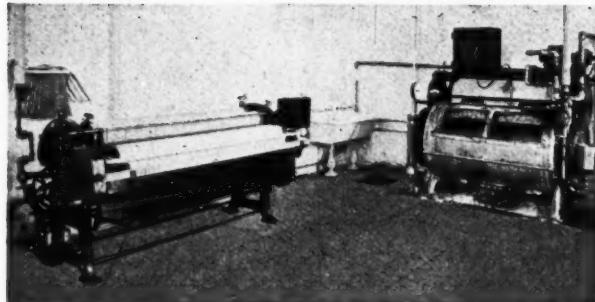


THE GRAYBAR TAG — SYMBOL OF DISTRIBUTION



Pasadena High School, Pasadena, California. Architects—John C. Austin and Frederic M. Ashley, Los Angeles

## Why the Pasadena High School installed an "American" laundry



A corner of the "American" equipped laundry at the Pasadena High School.

The Board of Education of Pasadena, California, was quick to appreciate the advantages of installing a laundry department in the magnificent new Pasadena High School. For having a laundry within the building has meant that linens for the cafeteria and domestic science classes can be cleaned and returned to service in quick time, and so only a relatively small stock is required. There is another advantage, too, in that athletic suits and towels may be laundered under the direct supervision of the school's educational department.

Engineers of The American Laundry Machinery Company who designed and installed the laundry at the Pasadena High School will be glad to advise you regarding your own laundry problems—without obligating you in any way. Have them tell you why more and more schools and colleges consider a laundry department an increasingly important adjunct. Write.

### The American Laundry Machinery Company

Norwood Station - Cincinnati, Ohio

The Canadian Laundry Machinery Co., Ltd.  
47-93 Sterling Road, Toronto 3, Ont., Canada

Agents: British-American Laundry Machinery Co., Ltd.  
Underhill St., Camden Town, London, N.W.1, England

(Concluded from Page 108)  
take up his new duties September 1, has been elected for a five-year term.

—Supt. E. Roberts of Albia, Iowa, has been reelected for another year.

—Mr. R. L. Irle of Wells, Minn., has been elected superintendent of schools at Glasgow, Mont. Mr. A. H. Granger, of Annandale, succeeds Mr. Irle at Wells.

—Mr. R. S. Ebert has been elected superintendent of schools at Carrollton, Ill.

—Dr. J. C. Brown of St. Paul, Minn., has been elected president of the Northern Illinois Teachers' College at DeKalb.

—Mr. R. E. Paret of Wilmington, Ohio, has been elected superintendent of schools at Sedalia, to succeed Owen Jones.

—Supt. J. P. Study of Springfield, Mo., has been reelected for another year.

—Mr. E. E. Keso of Russellville, Mo., has been elected superintendent of schools at Centerview.

—Supt. B. F. Stanton of Alliance, Ohio, has been reelected for another two-year term.

—Supt. F. A. McCoy of Stanwood, Iowa, has been reelected for a three-year term.

—Mr. J. A. Anderson of Hawley, Minn., has been elected superintendent of schools at Paynesville.

—Mr. R. M. Fjeldstad of Cottonwood, Minn., has resigned to go to Boston.

—Mr. L. A. Pittenger of the Ball Teachers' College of Indiana, has been elected a member of the state board of education to succeed the late B. J. Burris.

—Mr. F. M. Scott of Collinsville, Ill., has been elected superintendent of schools at Roxana.

—Supt. M. L. Peters of Phoenixville, Pa., has been reelected at a substantial increase in salary.

—Fifty years of service in the public schools of Swampscott and Boston, Mass., is the remarkable record of Fred O. Ellis of Braintree, who has just celebrated his 91st birthday. Mr. Ellis retired in 1900 from teaching, having attained the age of 73. Mr. Ellis taught in the Swampscott schools until 1867, when he was appointed a teacher in the South Boston schools.

—Mr. Elwood Adams of Terre Haute, Ind., has been elected superintendent of schools at Newman, Ill.

—Mr. Milton Brown of Wataga, Ill., has been elected superintendent of schools at Knoxville.

—Supt. H. H. Helter of Mansfield, Ohio, has been reelected for a two-year term.

—Supt. T. W. Gosling of Madison, Wis., has been appointed a member of the National Education Association's committee on international relations. Mr. Gosling, as a member of the committee, will attend the second biennial convention of the World Federation of Educational Associations at Toronto.

—S. P. Carmichael was reelected superintendent of the Richland, Wash., schools for a period of three years.

—The Gordan borough, near Mount Carmel, Pa., elected as school principal Clarence Derr of Susquehanna University.

—Mrs. L. O. Anderson was chosen superintendent of the Waterville, Wash., schools.

—I. S. Henshaw has been reelected superintendent of the Ada, Oklahoma, schools.

—Supt. Arthur B. Rowell of Glencoe, Ill., has been reelected for his twenty-fifth year. Mr. Norman E. Watson has been reelected to succeed himself as assistant superintendent.

—Mr. J. W. Potter, for the past eight years principal of the Carlisle, Pa., high school, and recently acting superintendent, has been elected superintendent of schools, to succeed the late J. C. Wagner. Mr. Potter is a graduate of Dickinson College and Columbia University. He has filled a number of important school offices as teacher and principal. In 1918 he taught in the Wilkes-Barre High School, and in 1919 he went to Carlisle as principal of the high school.

—Dist. Supt. Charles E. O'Neill of New York City was recently given a testimonial dinner by the teachers of districts 43 and 44, Brooklyn, at the Hotel Commodore. The occasion was the third anniversary of his appointment. Among the important speakers were Dr. George J. Ryan, president of the board of education; Arthur S. Somers, and Associate Supt. Mandel.

—Mr. Hazen Chatfield, formerly principal of Public School 67, Bronx Borough, New York City, has been appointed district superintendent, in charge of Dists. 21 and 22. Mr. Chatfield succeeds W. A. Boylan, who has become an associate superintendent.

—Supt. H. H. Helter of Mansfield, Ill., has been reelected head of the school system.

—Mr. H. K. Bauernfeind of Polo, Ill., has been elected superintendent of schools at Monmouth.

—Supt. Werner Smith of Plymouth, Ill., has been reelected for a fifth term.

—Mr. E. C. Dilger of Millersport, Ohio, has been reelected for another year.

—Supt. C. G. Lappin of Shawnee, Ohio, has been reelected as head of the Shawnee Township Centralized Schools.

—Supt. E. H. Berry of Plymouth, Ohio, has been reelected for another year.

—Mr. R. H. Hulgren of Orion, Ill., has been elected superintendent of schools at New Windsor.

—Supt. Martin L. Peters of Phoenixville, Pa., has been reelected with a substantial increase in salary.

—Mr. Fred von Borgersrode has been appointed assistant superintendent of schools at Spokane, Wash. Mr. von Borgersrode will devote half of his time to the city schools and half to the Cheney Normal School. He will take office in September.

—Mr. Homer W. Anderson, formerly assistant superintendent of schools at Denver, Colo., has been appointed deputy superintendent, to succeed A. L. Threlkeld, who becomes head of the school system. Mr. Anderson, who assumes his new duties in September, is a schoolman of wide experience and thorough training. He came to Denver in January, 1923, when he assumed the direction of research, statistics, and building activities. He is a graduate of Des Moines University and holds a degree given by Iowa University.

—Supt. J. L. Ward of Bucyrus, Ohio, has employed a detective to run down charges which are being circulated against him. In an interview he said: "A man with any self-respect and belief in himself when he finds himself the victim of a situation such as this has a right to protect himself against it. This is my own investigation made by my own representative to ascertain the source and purpose of such rumors. I am not afraid of the truth and am therefore waiting this threatened exposure with complacency. The public can then form its own conclusion."

—Mr. J. M. Sandlin of Duncan, Okla., has been reappointed as a member of the state board of education for a six-year term. This is the fourth time that Mr. Sandlin has been appointed to this position. His term expires in July, 1933.

—Mr. S. W. Christian of Traer, Iowa, has been elected superintendent of schools at Belle Plaine, to succeed R. B. Lee, who has accepted the superintendency at Rawlins, Wyo.



## ~ ANNOUNCEMENT ~

WE WISH TO INFORM THE PUBLIC that on June First we purchased the Playground Interests of the F. B. Zieg Mfg. Co. of Fredericktown, Ohio, known as the "Paradise" line. Hereafter all "Paradise" equipment will be manufactured together with the "Betterbilt" line by the Mitchell Manufacturing Co. of Milwaukee, Wis.



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## The Care of School Equipment

F. G. Webb, Atlanta, Ga.

For many years it was my duty and my pleasure to visit schools, school officials, and school teachers. As a seller of school merchandise it was natural for me to inspect the equipment I found in schools—the service it was giving, its durability, its adaptability to the purpose intended, and the care it received. For some years I have not visited schools, but I have caused to be reported to me the same things that I had previously noted. As a direct and indirect observer of school equipment I know that the waste and loss to the schools by reason of using poor judgment, by using equipment not suited for the purpose desired, and by failure to care for it, annually amounts to thousands of dollars. If I can say a few things that may at least in part eliminate this loss I shall be indeed happy.

To discuss the care of all classes of school equipment would require more time than has been allotted to me, so I shall take those two things that are required for all schools—desks and blackboards, with crayon and erasers as accessories to blackboards.

When you purchase a shipment of school desks the vendor should furnish you a bill of lading. This is the shipper's receipt from the railroad and is your order for the goods. It should be used to determine that what you receive corresponds correctly with what was shipped. If any part of the shipment has been lost or damaged, the agent of the railroad should be required to make a memorandum of the packages lost or damaged on the receipt paid for the freight. This may appear a foolish suggestion, but it is often not done. It is but fair to yourself and the shipper. It puts the shipper in position to have the lost or damaged parts replaced without loss to him and he is really under no obligation, legal or moral, to do so unless the facts are noted by the railroad agent on the expense bill. To follow this suggestion saves time, confusion, and possible misunderstanding.

Also with the invoice and bill of lading you should receive a check list showing the number of crates or packages of both woods and standards of each size of desks in the shipment. Before the crates are opened you should check the list against the shipment, so if any error has been made by the shipper you may be in a position to make a clear and definite report to him. This also saves time and confusion.

### Instructions for Assembling School Desks

Shippers supply with each shipment a complete set of instructions for assembling the desks. This should be put in the hands of the person who will install or superintend the installation of the desks. The instructions should be read carefully before the work is undertaken. The instructions are not complicated and can be easily understood.

It is not necessary to go through the details of the operation of assembling a desk, but I must stress the necessity of following the instructions carefully and fully for on this depends largely the durability and satisfactory service of the desks. Incorrect or faulty installation is the chief cause of all troubles with desks, and is the one thing above all others that cuts short the life of them. If a desk of good material is correctly put together, it will be steady and rigid; but if it is not assembled properly, it is not steady and gradually becomes more shaky till in a few years it becomes useless.

To illustrate with figures: Say you buy 100 desks at \$7 each, and that under ordinary usage should have an average life of 20 years. The total cost is \$700 and the cost per year per desk is 35 cents. Suppose by reason of faulty instal-

lation ten of the desks must be discarded at the end of five years: You lose 35 cents per year for 15 years, or \$52.50. Say another ten goes into the discard in ten years; that is a loss of \$35.00. And another ten at the close of the fifteen-year period; that is \$17.50. The total loss is \$105, besides the expense of buying new desks to take the place of those sent to the junk pile.

If you are installing the stationary type of desks, the kind that is ordinarily bought for rural and village schools, they should be securely fastened to the floor with the long screws furnished for that purpose. I stress the long screws because it is often found that the short screws are used and if so they soon work loose, particularly on floors of pine or other softwoods.

No desk of the stationary type, regardless of how it is made or of what it is made, will be serviceable if not screwed to the floor. These desks are specially made to be used that way and no other. It is not fair to the manufacturer, to the children, to the teachers, to your school funds, or to yourself to permit stationary desks to be used as movable desks. There are types of desks that do not have to be fastened to the floor, and if for any reason you require a room or the entire school fitted with desks that can or must be moved, buy desks of the movable type.

### Installation of Blackboard

Regarding the installation of blackboard there are only a few simple suggestions I would make. First, fasten the board securely to the wall, and protect it by putting molding around it. If it is a board made of wood pulp, never put it on a plastered wall until the plaster is thoroughly dry, and fasten only at the top of the board so that it may not warp when it expands in damp weather.

Here is another suggestion: Be sure not to put the writing surface next to the wall. The front and back surfaces are similar, but even a casual inspection reveals the front or writing surface. Good wood-pulp blackboard should last indefinitely and the surface should be satisfactory from 8 to 12 years, depending on the amount of use. It is not necessary to discard the board when the surface wears off, because it can be resurfaced at small cost. And here again you must be careful to follow directions. The base of blackboard surfacer is heavy, it precipitates rapidly. Before using it you should stir the contents of the can thoroughly, and you should continue to stir it constantly, otherwise you will get a surface so slick that it will not take chalk. There are other instructions for applying the surfacer (full instructions are on the cans), but failure to get satisfactory results is usually due to this cause.

Blackboard should be cleaned occasionally. In doing so, never use soap, gasoline, acid, or alkali. Use clean water. Clean a space three or four feet long, and immediately dry. Use damp cloths or old newspapers.

### Qualities of Blackboard Crayons

Do not expect the blackboard to give long service unless you use good crayons and good erasers. If the crayon has grit in it, the grit cuts the surface of the board; if it has clay in it, the surface of the board soon becomes "slick" and will not take crayon. Blackboard crayon should be pure or nearly pure chalk, the kind our mothers used years ago as a face powder. If it is gritty or composed of clay, the board is injured; if it has plaster of paris in it, the injury to the health of teachers and pupils is likely to become serious. The injury can be to the skin, hair, ears, nose, throat, and stomach.

There are two kinds of crayon, the soft or molded crayon, and the hard or pressed crayon,

commonly called dustless. Good or inferior materials can be used in either, so don't get the idea that you are buying a superior crayon because it is advertised as dustless. The advantages in a pressed crayon are that it causes less dust, and being harder than molded crayon makes a more even mark and lasts longer. It is, therefore, more economical.

At an expense of a few cents and with but little trouble you can test the purity of crayon. Nitric acid will dissolve pure chalk, but will not dissolve plaster of paris, grit, or clay. In an ordinary test tube or a small bottle with large mouth pour a small quantity of nitric acid and then put in a third or half stick of crayon, depending on the quantity of the acid. If the crayon is pure chalk, the result will be that practically nothing is left as a precipitation or sediment; if the chalk is entirely or partly plaster of paris or clay, the precipitation will be in proportion to the amount of the impure or injurious matter in the crayon.

Cloths are sometimes used to clean blackboard. This is not a good idea, unless they are frequently changed for clean ones. They absorb the grease from the children's hands, soon become greasy and transmit the grease to the boards, making it necessary for the boards to be cleaned or perhaps resurfaced.

### The Problem of Erasers

It is better to use manufactured erasers, as the hands never necessarily come in contact with the surface used on the blackboard. Aside from wearing qualities, there is not much choice in erasers, but be careful to purchase those that have the vertical layers of felt of good quality and are so fastened to the back as not to easily crush and become flabby.

I strongly advise against erasers which have a heavy wooden back which is covered by felt. The danger in them is through the fact that to the heavy wooden backs, there is attached very thin layers of felt. The felt soon wears to the wood, and if not discarded, the rubbing of the wood against the boards will injure the boards rapidly.

Erasers should be constantly cleaned of the accumulated dust. There are machines for this purpose; but even if a school has no machine the erasers should be kept clean—take them in the yard and beat them on a plank.

There is an old saying, "what is everybody's business is nobody's business." This coupled with the average American's disregard for public property is the cause of thousands of dollars of loss to the school property of this state each year. The equipment rapidly deteriorates because no one gives it any care, no one undertakes to take a stitch in time. A loose screw or a bolt tightened will often add years to the life of a school desk or to other equipment.

There should be some method of inspection and repairing in every school system regardless of its size, and this relates not only to the equipment but to the buildings. A man sent around to the schools every two or three months, or even once or twice during the school year to make minor repairs on the buildings, to adjust loose screws and bolts on the desks, to refasten desks that are not secure to the floor, and to do other minor jobs will prove in the long run, a great saving.

Buy good equipment of every kind. Surely there is no economy in poor material. The initial cost is more but in the long run the expense is less besides the general satisfaction given by high-class equipment.

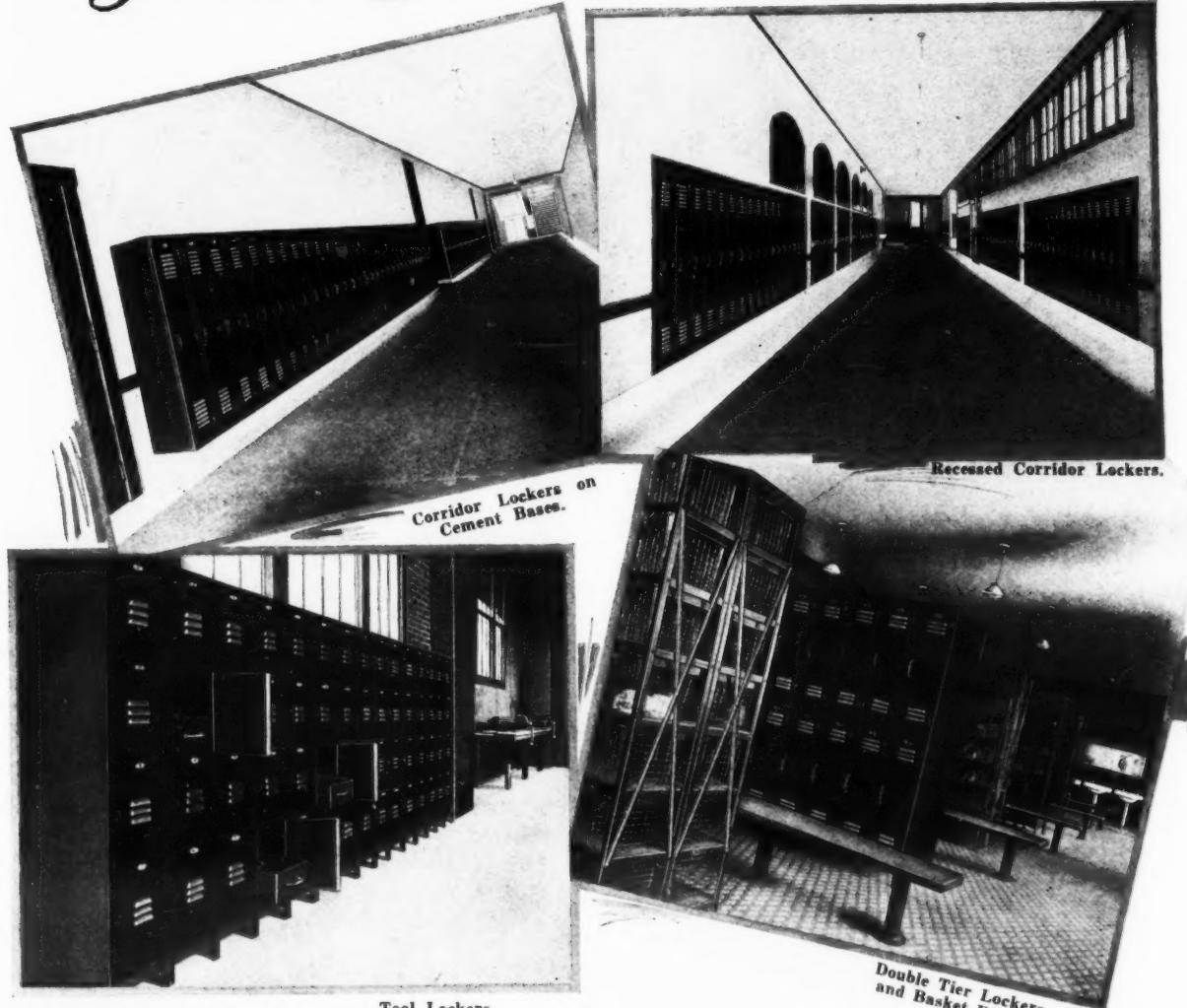
### The Supply and Equipment Factor

In preparing this paper I have studiously avoided saying anything that might seem to be dictated by self-interest. But there is one thing I do want to say that may appear to have in it

(Concluded on Page 114)



# Let Durabilt Solve Your Locker Problems

Corridor Lockers on  
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Frequently School Boards, Superintendents, Business Managers, Architects, and Engineers encounter the problem of determining the most practical and economical locker storage.

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Above are illustrated a few varied applications of Durabilt products but it is a physical impossibility to cover our wide range of types and sizes in an advertisement or even in our exceptionally comprehensive locker catalog.

Our engineers are daily encountering and solving new locker problems and their accumulated experience is available to all who desire to take advantage of same.

Whether you require lockers for corridors or alcoves, domestic science or sewing rooms, industrial arts or manual training departments, team room or gym, there

is a type and size of Durabilt Locker exactly suited to your particular requirements.

The accompanying illustrations show how Durabilt basket racks, box lockers, double tier and single tier lockers were used to the best possible advantage in giving practical and efficient storage in a single building.

While it is true we aim to keep the number of types and sizes in any one installation down to the minimum, we nevertheless always recommend the equipment which is most practical and in keeping with the interior design and layout of the building.

Perusal of the detailed information contained in our loose-leaf locker catalog together with the reproductions of actual photographs of typical installations should prove that we are fully qualified to solve the most difficult locker problems.

We will gladly send a copy of this catalog, assist in preparing plans and specifications, and submit prices without any obligation to you.

*No better built than Durabilt!*

## DURABILT STEEL LOCKER CO.

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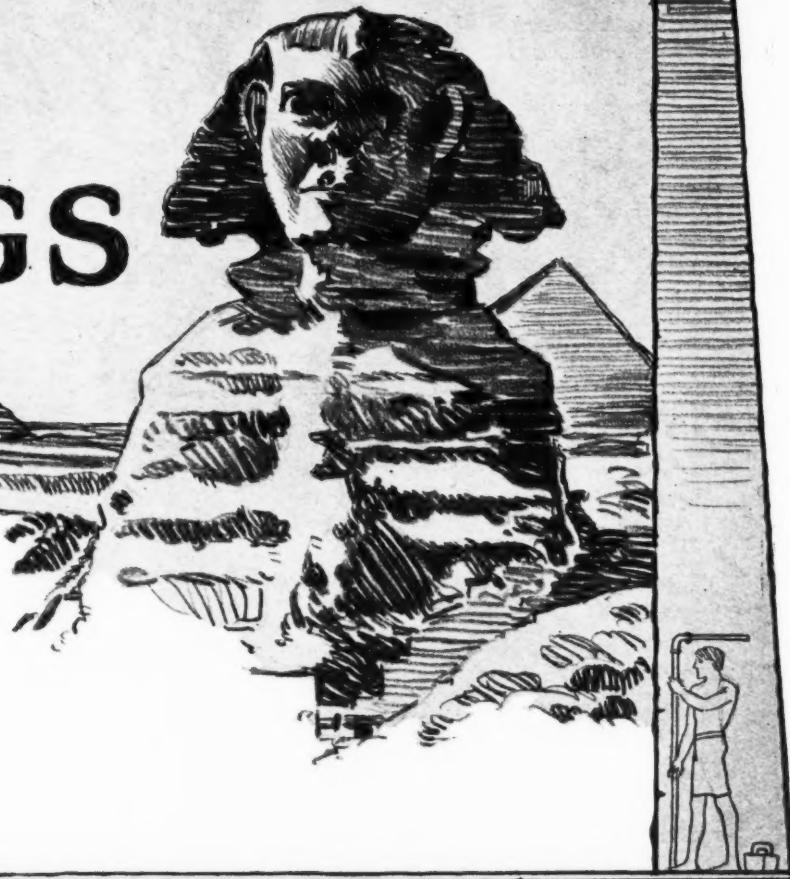
AURORA, ILL.



# SURVIVAL *of the* FITTINGS

as well as the drain pipe  
is assured in the school  
laboratory that has Duriron  
acid-proof equipment.

**The Duriron Company**  
Dayton, Ohio



(Concluded from Page 112)

an ulterior motive. When a new building is to be erected from a bond issue or other definite sum, set aside a sufficient amount to equip the building. A building is of no use for school purposes unless it is equipped and properly so. Of course, I realize that because of opposition or other causes, it is at times impossible to get a successful election of an adequate bond issue. I realize and appreciate the many difficulties thrown in the way of progress in all educational matters; but at the same time I know that selfish motives and lack of judgment and foresight sometimes cause an entire bond issue to be used in the building with no provision for the equipment.

Without provision for the equipment several things may happen, sometimes all of them happen, and any or all are detrimental to the interest of the school and community: Part of the building (frequently the auditorium which should be the best-equipped part of the building) is left without equipment, shoddy material is bought, the equipment is bought on credit at a rate of interest higher than that paid on the bonds, the payments on the debts are funds which should go to pay better salaries to teachers and thereby get better teachers.

Pardon a personal allusion; in February I completed a year's service as president of the National School Supply Association. For two years previous to my term as president I was a vice-president, a member of the executive committee, and chairman of the committee on recommendations and resolutions. In my official relations I stressed one thing and included this one thing in my address as president: As manufacturers and merchants of school goods we must remember always that the final consumer of our merchandise is not the buyer. The final consumers are the school children of America,

and they have no voice or choice in the merchandise supplied. They are the innocent bystanders who often times get shot in the fracas. I stressed that what is sold should be suited to the purpose intended, of such nature and character as to benefit the child, and surely not to do him any harm, physically or otherwise.

To you as buyers of school merchandise I read the same lesson. Do not let your desire for political advancement, to please the public, to make a good showing in economy, or other things cause you to build a house, to buy equipment, or to furnish supplies that might prove a detriment to the child.

#### PORTLAND ADOPTS VISUAL METHOD

The Portland public schools, having formally adopted visual method of instruction at the beginning of the present school term in February, are now confronted with the problem of securing equipment for use in the department. I say "formally adopted" because visual instruction is not new in Portland; the principals or teachers of many of the schools, having become interested at different times, have purchased moving-picture machines and other equipment with money raised through some school entertainment or other enterprise.

But in February, the school board set aside \$5,000 to carry on the work for one year. Miss Carolyn Brown, who had been a teacher in one of the grade schools and long interested in visual instruction, was put in charge of the work.

The plan at the present time is to supply each school with five types of instruments: (1) the stereoscope, with stereographs or pictures; (2) the lantern, using the glass slides; (3) the small projector of still films; (4) the opaque projector, with which may be used any kind of picture, such as cards and newspaper and magazine illustrations and clippings; (5) and the motion-picture machine.

As the \$5,000 would, of course, be inadequate to supply the ninety-odd schools in Portland with a complete set of instruments, Miss Brown is co-operating with the different schools by securing for them equipment which they have not already bought for themselves. The schools which had no equipment have been furnished with some of the

instruments, so that in every school a beginning may be made in the visual method.

The school board has in no case furnished a school with the moving-picture machine. This is, of course, the most expensive instrument of all, but many of the schools have them, having been able to pay for them with funds secured through the showing of pictures.

Besides the material purchased by the school board for the individual schools, many films, slides, and other equipment are kept at the central office for circulation among the schools. But many of the films and slides used in the work will be borrowed or rented. Miss Brown has been promised the use of hundreds of films from transportation and other companies, the list including The Oregon Trail, Yellowstone Park, The Apple Harvest, Lumbering in Canada, the Panama Canal and Cuba, the Land of Sugar.

The University of Oregon has hundreds of slides which will be rented for a nominal sum. Since the glass slides are so expensive, Mr. E. H. Whitney, assistant superintendent of the Portland schools, has been experimenting with the taking of pictures from the slides, to be made into films for use on the small film projector. He has also taken pictures from pictures for the same purpose. The small films, being inexpensive and easily handled, will minimize the trouble and expense involved in showing the same pictures.

Realizing how quickly costs for visual aids to instruction can mount, Mr. Whitney and Miss Brown are bending every effort to make the funds available go as far as possible in carrying on this means of spreading knowledge among Portland's school children.

#### ASSOCIATION ELECTIONS

—The officers of the Connecticut State Teachers Association for 1927 are: President, Gordon C. Swift, Watertown; 1st vice-president, Florence E. Smith, West Hartford; 2nd vice-president, Leon C. Staples, Suffield; recording secretary, Edith Lindell, Thomaston; assistant recording secretary, Margaret E. McLaughlin, New Haven; corresponding secretary, Samuel P. Willard, Colchester; treasurer, Edward B. Sellew, Middletown; finance committee, Frank K. Watson, Danbury; Harold E. Chittenden, Naugatuck; Gilbert W. Miller, New Haven.

—Supt. W. H. Rice, of London, Ohio, has been elected president of the Central Ohio Schoolmasters' Club.

# Comparisons That Do Not Compare

You who are charged with the responsibility of buying the equipment for schools—

Have often heard this claim—

"It is as good as Kewaunee."

This is a claim that is easy to make, and many times it seems to be easy to demonstrate—by an off-hand statement.

For instance, a Kewaunee desk may be made of oak, and some other desk may be made of oak—yet that fact alone will not prove that the other desk is as enduring as Kewaunee.

A Kewaunee Desk may have 12 drawers, and some other desk may have 12 drawers—yet that fact alone could not prove the other desk to be as well equipped for laboratory work as Kewaunee.

A Kewaunee Top is chemically-treated and fin-

ished, yet the top of some other desk may be chemically-treated and finished, but any business man knows that a mere statement of that sort would not be any proof that the other desk offered as permanent and satisfactory a surface as Kewaunee.

A \$10 fiddle may be made of the same kind of wood and have as many strings as a Stradivarius.

There are many reasons why Kewaunee has earned such a reputation for pedagogic adaptability, satisfactory service under varying conditions, and long life.

May we tell you about Kewaunee Laboratory Furniture—for the teaching of Physics, Chemistry, Biology, Agriculture, Electricity, and Domestic Science, and for use in Manual Training and Kindergarten Work?

## Kewaunee Mfg. Co. LABORATORY FURNITURE EXPERTS

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Hope School, Providence,  
R. I. Chemistry Laboratory equipped  
with Lincoln Science Desks.



## LABORATORY and CLASS ROOM IN ONE ROOM!

Average chemistry laboratories are unused 59 per cent of the time, physics laboratories 71 per cent of the time, and biology laboratories 44 per cent of the time!

Sheldon Multi-Service Tables equipped with the Sheldon Swinging Chairs serve the double purpose of laboratory tables and classroom desks. They enable you to equip a classroom for biology, physics, general science and recitation purposes. Thus you may use the room 100 per cent of the time and receive the maximum returns on your educational investment!

Sheldon Swinging Chairs are as comfortable to sit in as the modern school seat. They promote correct posture. They move silently and easily in strong contrast to the noise created by the scraping of ordinary chairs on the floor. They never obstruct aisles; are never in the way.

Write for information concerning Sheldon Multi-Service Furniture for laboratory, vocational, and home economics departments. It will point the way to economy and efficiency.

**E. H. SHELDON & CO.,**  
*Laboratory, Home Economics and Vocational Furniture*  
**Muskegon, Michigan**

## Why Schools Prefer the



# REMINGTON TYPEWRITER

THE continued demand for Remington Typewriters for instruction purposes by the business schools of America has for a long time been without a parallel in the history of the writing machine.

The reasons for this demand are simple and obvious. The Remington is simple, strong, and durable. It will stand the stress of school use. It is in all respects the ideal teaching machine. And the schools which employ the Remington for teaching purposes are furnishing exactly the kind of training which is demanded by the business world.



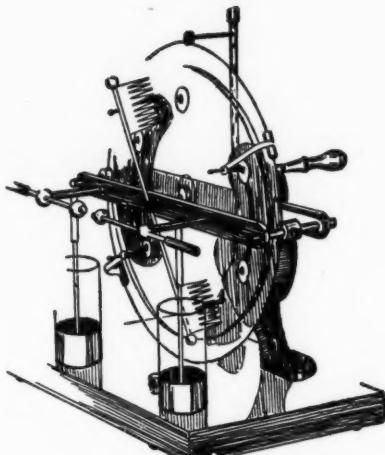
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TYPEWRITERS**  
*A Machine for Every Purpose*

# LIKE NEW *after years of service!*



NUMBER 82-150

ONE TURN of the crank—a long, fat spark cracks through the air . . . and this same result year in and year out. This new design built around a positive, sweet-running, gear-drive transforms this ordinarily cumbersome, delicate, contrivance into a compact, rugged, machine to be relied on for long years of dependable service. Teachers tell us their Harcourt Toepler-Holtz machines are Like New even after years of the hardest service.

Not in this one apparatus alone but in the entire Harcourt line whether for physics, chemistry, biology, or general science, this same Quality Standard is maintained. Guard against laboratory delays by selecting science apparatus backed by 32 years of continuous service to the leading High Schools of the country.

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**Harcourt**  
*Laboratory Equipment*  
**STANDARD for EDUCATION SINCE**



**SCHOOL BUSINESS OFFICIALS MEET IN PHILADELPHIA**

(Continued from Page 56)

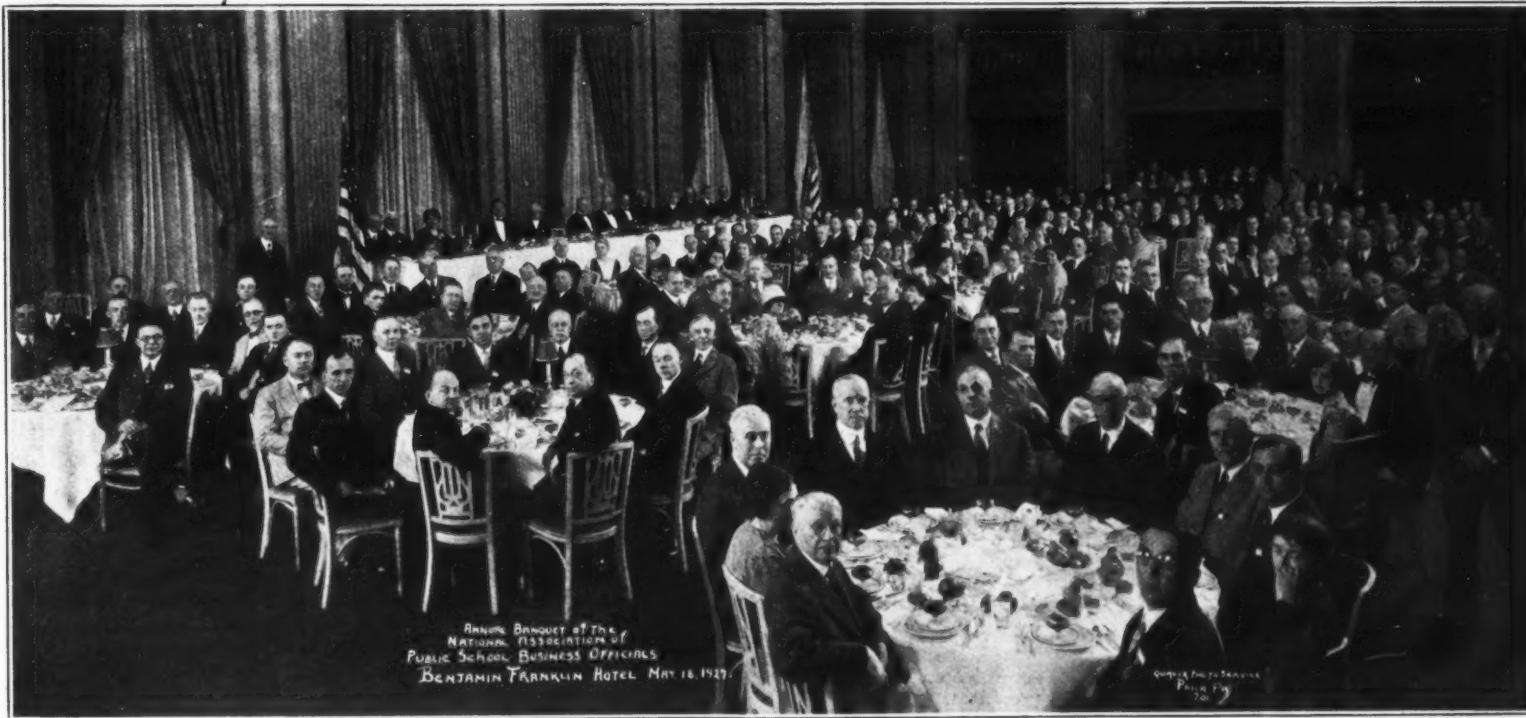
spellbound by his keen analysis of the present problems, standards, and theories of heating and ventilating school buildings. Mr. Schmidt showed that many of the practices are based on unscientific assumptions and that there is a very great need for an intensive study of the entire subject from the viewpoint of health, efficient engineering, and economy. Mr. Schmidt discussed many of the newer ideas concerning fresh air, air movement, humidity, air control and argued that carefully planned heating and ventilating apparatus must not only be installed, but it must be operated consistently,

continuously, and with common sense. The old idea that open windows must not be permitted in a building where blast ventilating systems are in operation has been proved entirely false. Overheating is the common bugbear and immense improvements could be effected by actually holding the temperature in rooms at 68 to 70 degrees. Mr. Schmidt described the relative advantages and disadvantages of unit ventilation and window ventilation.

Mr. Walter D. Cocking, director of curriculum, books, and supplies at St. Louis, Mo., discussed the functions of the business manager and his relations to the superintendent and the educational

and supervisory executives. He argued that the only reason for the existence of the business department is to insure adequate educational service for the pupils. Both the educational and the business executives of the schools must carry on their work in perfect cooperation, each acting within its own sphere and supplementing the other. The educational department must initiate and determine the educational policies; the business department must carry on the actual work of providing housing and of purchasing books, equipment, and supplies, and distributing these.

Mrs. Winifred A. Hart, supervisor of domestic science at Bridgeport, Connecticut, described in



ANNUAL BANQUET OF THE NATIONAL ASSOCIATION OF PUBLIC SCHOOL BUSINESS OFFICIALS AT THE BENJAMIN FRANKLIN HOTEL, PHILADELPHIA, PA.—MAY 18, 1927.

*When You Give Children Something to Work With in School  
Give Them Something They Play With at Home.*

## CLASSROOM

PERHAPS the biggest reason for the wide classroom popularity of CRAYOLA crayons, and other GOLD MEDAL products,—is the fact that *children use them at home.*

Progressive School Boards know that when you place in a child's hand a tool that he is familiar with, that he has played with—you place him at ease, you gain his confidence, and irksome work becomes pleasant play. The result is the pupil learns quicker, the teacher's job is made easier,—and when the monthly report card is sent home the parent is happier.



## FAVORITES

Of course, when you are ordering your supplies for the Fall Term, you will include CRAYOLA. But don't forget that CRAYOLA is just one of the items in the GOLD MEDAL line. You will need chalk—white and colored; you will need water color paints—and possibly pastel crayons. You can get them all with the familiar GOLD MEDAL seal—the seal that stands for sterling quality—preeminent leadership.

Your jobber has GOLD MEDAL products; or write us for our new catalog illustrated in full color.

### GOLD MEDAL School Necessities

**CRAYOLA** Wax Crayon  
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**ARTISTA** Water Colors  
**ANTI-DUST** 95% pure Chalk Crayon  
**AN-DU-SEPTIC** Dustless Crayon  
**ATLANTIC** White Chalk Crayon  
White and Colored Blackboard Chalk  
Lecturers' Colored Chalk

**BINNEY & SMITH CO.**  
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detail the management of the cafeterias in the high schools and elementary schools of Bridgeport.

Quite interesting contrasts in methods were presented to the Association by Mr. Charles L. Barr, of St. Louis, and by Mr. C. M. Schenck, of Denver, who outlined the successful standards and practices which have been developed in their respective cities.

A paper entitled "The Relations of the Business Manager to His Board and to His City," by Mr. John E. Byrnes, business manager of the Chicago board of education, was presented in printed form, but was not read, because of the lateness of the hour. The paper will be found on another page of this issue of the SCHOOL BOARD JOURNAL.

The last paper of the afternoon was read by Mr. Harry D. Payne, architect of the board of education of Houston, Texas. The city of Houston is educationally one of the most progressive and rapidly growing cities in the United States, and its business department has been noted for its special efficiency and ability. The school organization provided by the charter of the city makes the Houston board of education practically autonomous and free from interference by city departments. There is a grateful lack of precedents, and the men who are in charge of the department have made the best possible use of an almost ideal situation.

The present school-building program, which is based on a study made in 1924, involves a three million-dollar-bond issue, voted in 1925, and a four million-dollar-bond issue voted in 1926. The task of managing the planning and erection of new school buildings is in the hands of Mr. Payne, as full-time architect. He is assisted by a small corps of draftsmen and engineers. For the greater number of projects, outside architects are employed and these in turn engage their own structural engineers. The official school architect prepares sketches for each new building, based on the program outlined by the educational authorities and approved by the superintendent of schools and the board of education. The individual architects in turn make the complete plans for each building, and these are approved by the official architect, the business manager, the superintendent of schools, and the board of education. The sites for new buildings are selected by the business manager, and this official acts as the chief executive of the school department, throughout the entire progress

of each building project. Since 1924, three high schools have been erected, five junior high schools have been completed, and eighteen grade schools have been put up. Altogether, nineteen additions have been erected and 39 old buildings have been remodeled and repaired. A total of 20,000 children have been given accommodations.

On Thursday evening the Association met in three round tables. Mr. James Storer of Buffalo, N.Y., led in the discussion of problems of secretaries of boards of education in cities. Mr. J. D. Cassell conducted an animated round table on the problems of constructing buildings and heating and ventilation. Mr. E. M. Brown of St. Louis, led an exchange of experience in the management of cafeterias.

It is impossible to report any of these round tables with any degree of accuracy or completeness. It is sufficient simply to say that information about local practices, successful forms of organization, economical building materials, etc., came thick and fast. Not the least value of the round tables lies in the frank presentation of failures in administrative devices and methods, the use of building materials and forms of construction, in accounting, etc. Expressions were freely given on all matters which no secretary would care to put in print, or even to communicate through private correspondence.

#### The Friday Session

The Association devoted its entire attention to official business on Friday morning. Mr. J. D. Cassell, in reporting for the Committee on Housing, recommended that the committee be relieved of the task of preparing standards which its members consider impractical and inexpedient. A general discussion of the report led to expressions commanding the committee for its valuable services. It was finally agreed that the committee should be continued, enlarged, and encouraged to extend the scope of its studies and findings.

Mr. J. O. Adams of Delaware in presenting the report of the Committee on Uniform State Accounting and Cost Finding showed that his committee has been busily engaged in presenting the necessity of uniform accounting to the chief executives of the several states. The weight of state laws and local precedents is such that it will require many years of consistent effort to secure the necessary legislation in the various states, to permit of the adoption of the approved, standard accounting.

The Committee on Resolutions expressed the regrets of the Association over the death of E. L. McCune of Ohio and Ralph M. Bowman of New Jersey. The resolutions further directed the secretary to prepare a statement of the accomplishments and purposes of the Association for distribution to interested persons. The committee coincided with the recommendation of President Wynkoop for the appointment of a Research Committee of five members, whose duties are to be determined by the executive committee. The committee further expressed the hearty thanks of the Association for the hospitality of the Philadelphia school authorities.

The committee on nominations presented the following slate of officers who were unanimously elected:

President—Mr. H. L. Mills, Business Manager of the Board of Education, Houston, Texas.

Vice-President—Mr. George King, Clerk of the School Board, Salt Lake City, Utah.

Secretary—Mr. John S. Mount, Inspector of School Accounts, State Department, Trenton, N.J.

Treasurer—Mr. Henry W. Huston, Auditor of the State Department, Trenton, N.J.

Member of the Executive Committee—Mr. John B. Wynkoop, Business Manager of the Board of Education, Bridgeport, Conn.

#### PERSONAL NEWS OF SCHOOL SUPERINTENDENTS

—Harley N. Rohm was elected superintendent at Cambridge, Ill.

—Supt. J. E. Sprinkle of McCutchenville, Ohio, has been elected superintendent at Kings Mills, Ohio.

—G. B. Ferrell of Dysart, Iowa, was elected superintendent at Oelwein, Iowa.

—The school board at La Farge, Wis., appointed C. J. Krumm as superintendent.

—Maro S. Brooks, superintendent of the Medford, Mass., school, has been suspended from office.

—R. J. Hill was reelected superintendent of the Leland, Washington, schools. At Granger, Washington, W. J. Harmon was reelected superintendent.

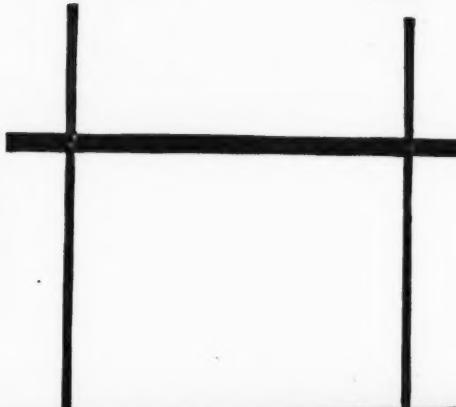
—Supt. C. C. Chalker of Sparta, Ga., has been reelected as head of the schools for another year.

—Supt. Homer Weeks of Ringling, Okla., has been reelected for the next year.

# Peterson Furniture for Laboratory and Library



Student's  
Laboratory  
Table  
NO. 939



Student's  
Physics  
Laboratory  
Table  
NO. 1105

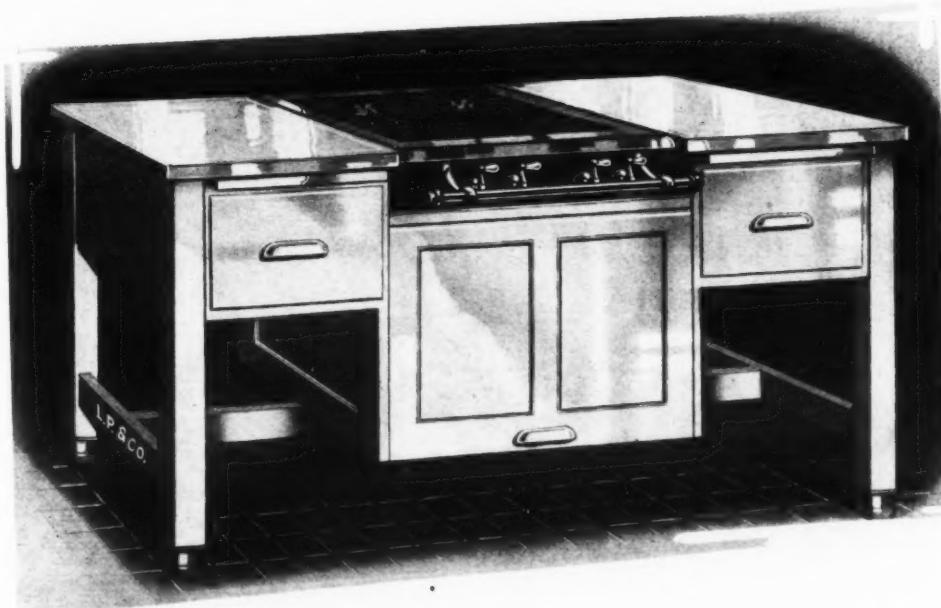
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. . . the result of constant research and development . . . finds expression in PETERSON PRODUCTS, nationally-known for their quality, serviceability and beauty of design.



## ANNOUNCING OUR **DU ART** LINE OF HOME ECONOMICS EQUIPMENT

The DU ART Line marks a decided step forward in Home Economics Equipment embodying SANITARY CLEANLINESS, GREAT DURABILITY and BEAUTY OF DESIGN.



We shall be pleased to answer promptly with detailed information, your inquiry concerning our NEW, COMPLETE, DU ART LINE.

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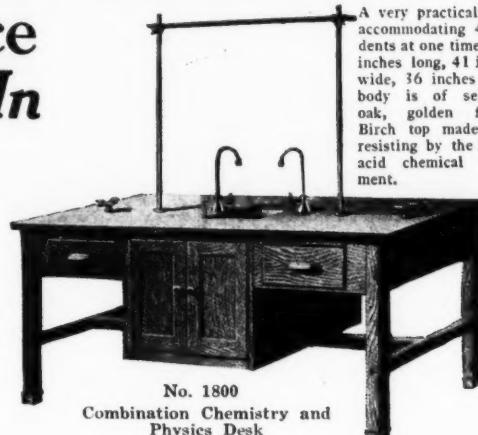


# Laboratory Furniture *Made in Manitowoc*

## Unparalleled Performance Assured by Wiese *Built-In* Excellence

Measured by any conceivable laboratory test, Wiese equipment is first outstanding in performance. Rigid classroom requirements serve only to accentuate the perfection that is typical of Weise equipment. Built into every product is a quality that reflects the skill of its craftsmen, the specialized experience of its entire organization.

*Send for our special free Catalog No. 30*



A very practical desk, accommodating 4 students at one time. 69 inches long, 41 inches wide, 36 inches high, body is of selected oak, golden finish. Birch top made acid resisting by the Ebon-acid chemical treatment.

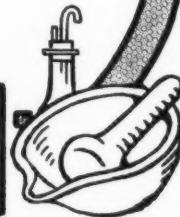
No. 1800  
Combination Chemistry and  
Physics Desk

## WIESE LABORATORY FURNITURE CO.

ENGINEERS AND BUILDERS

Standard or Built-to-order Educational and Technical Furniture for Physics, Agriculture, Biology, Household Economics and Manual Training.

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## NEWS OF THE SCHOOL BOARDS

### CHECK ON SCHOOL EXPENDITURES

"A speaker at the conference of school superintendents in Bridgewater this week declared that nobody should have authority to question the details of the school budgets. His point was that school committees understand the requirements of the school system and should be given free hand to provide for its requirements. He assumes that finance commissions, mayors or boards of aldermen are not so well qualified to appreciate the budget presented by the school boards as are the members of those boards, and consequently should be given no power to alter the estimates for school purposes submitted by the school committees."

So reports the Fall River, Mass., *Herald*, and then adds: "Whether such a doctrine will have the endorsement of taxpayers generally is open to discussion. Here in Massachusetts the authority of school boards in their own departments is made so broad that an attempt to dictate any detail about school appropriations would likely fare badly with a school committee determined to carry out its own ideas. Whether or not the statutes give a free hand to the school authorities in the matter of expenditures, such a condition presumes that school committees will transact their affairs in a businesslike way, will have constant and sympathetic regard for cities' financial position at the moment and prepare their budgets with due regard for that as well as their own convictions about what would be good to provide in the school system."

"Experience has not shown this always to be the case. Examples of business judgment that would discredit the primary commercial class have been known. There have been instances when the adoption of educational experiments have plunged communities into outlay that has proved a serious handicap upon other necessary municipal activities. There have been additions to the functions of the school system, which may be good enough in themselves, but which neither belong to the school system nor deserve a place in the budget when money is scarce."

"The principle of allowing independent action in financial matters pertaining to the schools rests upon the fact that school committees are elected by popular vote. They have as direct a mandate from the people as have the mayors or boards of aldermen. It is argued that judgment concerning school expenditures should only be passed by the voters in their choice of school-board members. Unfortunately, perhaps, responsibility for extravagance in the school administration is so much divided that it is extremely hard for the voters to get at. But if the doctrine preached before the school superintendents at Bridgewater is accepted, the remedy for overladen school budgets and questionable school enterprises must lie exclusively in the hands of the people who elect the school boards."

### BOARDS OF EDUCATION

—Lima, Ohio. The board of education has advertised for bids for 1,800 tons of coal. The total tonnage used this year will be 2,737, as compared to 3,700 tons in 1925-26.

—Bellaire, Ohio. Dresses for the girl graduate may not exceed eight dollars for workmanship and material, under a rule of the board of education. The home-economics department has cooperated with the mothers of pupils in keeping down the commencement costs.

—New Castle, Pa. The school board has received bids for the annual supply of pencils, paper, ink, and other items needed in the schools next year.

Buying supplies for the schools is a large task. The total of the supply specification list looks like the inventory of a stationery house and the bidders number practically all the local supply companies. Over 400 gross pencils are used, as well as 80 dozen erasers. The paper reaches 7,603 reams, while 600 dozen composition books, 36,000 tablets, and 2,000 sheets of carbon paper are used. Of chalk there will be 280 boxes. Other items are 8 gross of penholders, 275 gallons of ink powder, and 400 gross of pen points.

—Illegal selection of school architects for the next school year has been made by the Detroit, Mich., board of education, according to Dr. J. S. Hall, a member of the board. Dr. Hall claims that the ten architects who are to do work involving approximately \$4,000,000 were chosen through favoritism rather than according to ability, and that the selection was made at an illegal meeting.

—Plattsmouth, Nebr. Mr. S. S. Davis has retired as president of the board of education after long and faithful service. During Mr. Davis' term, the operating costs of the school have been reduced and the school-bond funds have been so invested that they produce a return of five to six per cent and add some \$1,200 each year to be applied to the bonds outstanding. This amount grows each year until the savings and interest enable the raising of the amount of the bonds several years before maturity.

—The school directors of Lincoln county, Washington, some fifty in number, met at Davenport and elected A. E. Pugh of Peach, as president, Henry Mahrt of Reardon, as vice-president, and Mrs. Harvey Nelson as secretary. Carl W. Morgan, county superintendent, was authorized to name delegates to the state school-board convention. The speakers were L. D. Burris of Olympia, and Superintendent Morgan.

—A public meeting held at Medford, Mass., has asked eight of the ten members of the school committee to resign and demands the reinstatement of Miss Mary P. Titcomb, a teacher who was discharged ten years ago.

—When Charles J. Lundberg, the new president of the Rockford, Illinois, board of education, assumed the chair he said: "Board meetings should be brief and confined to transaction of business. Unnecessary discussion will be avoided at the meetings of the full board."

—R. W. Clark, member of the Huron, S. Dak., board of education, in a public address to taxpayers recently stated: "I am more afraid of hastily called meetings of the board of education than I am of public opinion."

—The school board of Russell (near Ironton), Ohio, is in a deadlock over the selection of a superintendent. B. F. Kidwell, the present superintendent, is supported by three members and opposed by three members.

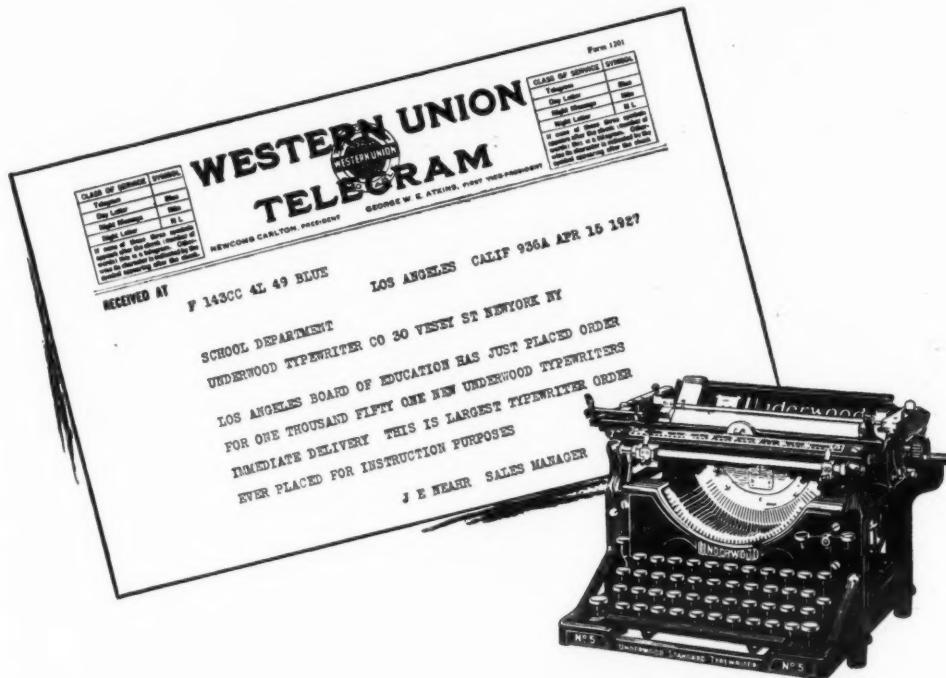
—"The school board is transacting business darkly," said a big newspaper headline when the school board of Waltham, Mass., went into executive session. The appointment of principals, supervisors, and teachers and the fixing of salaries was the business of the evening.

—School trustees in Greenville county, S. C., 300 in number, are organized and hold meetings regularly. Programs are carefully prepared and the

(Continued on Page 122)

# One Thousand Fifty One UNDERWOODS

*Purchased by the  
Los Angeles Board  
of Education*



## Largest Typewriter Order Ever Placed for Instruction Purposes

In placing this record-breaking order for Underwood Typewriters, the Los Angeles School Board paid striking tribute to the superiority of the Underwood for use in teaching typewriting.

School executives realize more and more that the selection of the right training equipment has a very definite bearing on students' progress in typewriting. From its introduction the Underwood became the "Machine of Experts." Its responsive touch, its smooth, perfectly timed action give a speed and accuracy beyond the needs of even the World's fastest typists.

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Branches in all Principal Cities

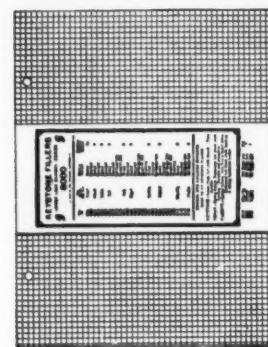
*More Underwoods are used for teaching typewriting  
than all other makes combined*

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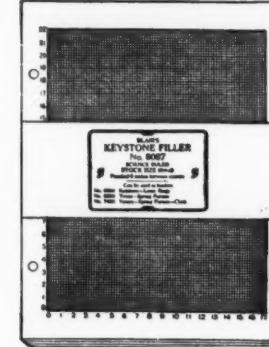
## ALL EDUCATIONAL USES



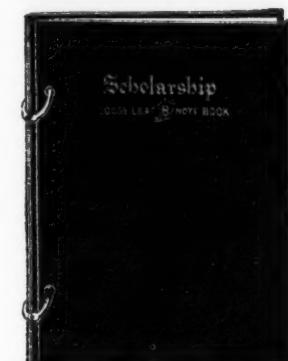
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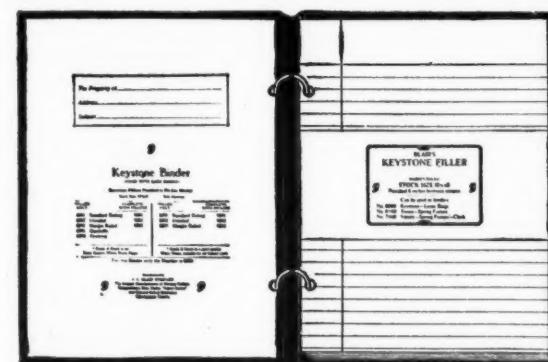
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(Concluded from Page 120)

performance of duties of trustees and the best methods of administering school affairs are discussed. Effective work has been done and helpful policies have been formulated.

—Supt. William McAndrew's recommendation for a teacher's dismissal early in June brought the first open clash between the Dever appointees of the Chicago board of education and the Coath faction. As a result, President J. L. Coath and his faction voted down a resolution by Dr. Otto L. Schmidt to overrule the committee's recommendation that the teacher be retained. The anti-Coath group also opposed the proposal of Mayor Thompson to wipe out the school-building fund and construct schools on borrowed money, the president's new policy of abolishing bureaus in the business department, and the attitude of the board in desiring to send the superintendent to the city council committee to be questioned.

—The board of education of Dallas, Texas, will set aside \$12,500 a year for the next two years in order to raise an insurance sinking fund of \$100,000. Each year for the last five years the board has placed \$15,000 in this fund which is to be used to underwrite fire insurance for fireproof buildings in the school system.

—Nashville, Tenn. The board of education has adopted a budget amounting to \$1,019,427. Of this amount, approximately \$610,000 has been collected from the county up to May 1 of this year. The largest single item, which makes up three-fourths of the budget, is that of payrolls, which amounts to \$835,577.

—Erie, Pa. The school board has received bids on 10,500 tons of soft coal, which is an increase of 500 tons over last year. Two-thirds of the amount will be delivered in July and August, and one-third during the winter.

—Beaver Dam, Wis. The board has purchased 350 tons of soft coal for the high school, and one car load of mine-run Pocahontas for each of the grade schools. The prices ranged from \$6.12 to \$6.95.

—Lowell, Mass. Mayor Corbett has proposed an unpaid schoolhousing commission to study the housing conditions of the schools and to prepare a definite program of construction. The mayor has completed a tour of inspection of the various schools to become more fully acquainted with the present conditions.

—Oklahoma City, Okla. Free textbooks will be eliminated next year, according to Supt. J. R. Barton. Books furnished by the state three years ago have been worn out and only a small portion of them are suitable for use next year. All suitable books will be issued for use in the schools where they are used.

—By a vote of 14 to 11, the Wisconsin state senate has sent to engrossment the bill to permit the city of Superior to elect new members of the school board. Senator Smith, of Milwaukee, who opposed the bill, was absent, and a motion to delay action until Mr. Smith arrived, failed to pass.

—Suit has been brought against five members of the school board of Andover, Ill., charging them with illegal payment of money for expenses and for legal services in resisting suits against the board, including an injunction suit to prevent the construction of a high school. The money alleged to have been spent illegally includes payment for architects' fees, drilling, printing, and compensation of board members.

—An injunction suit has been brought in the Circuit court of Cook county, Ill., to prevent the construction of a high school at Palatine. In the suit the school board is charged with exceeding the legal limit of debt in the bond issue for the school.

—The Appellate court of California has upheld a decision of the Superior court in affirming a ruling that the school board of Manteca acted within its right in the selection of a school site. The court held that the trustees had in all respects proceeded in accordance with the law and dismissed the claim of C. W. Bingham who had brought the action against the board. The action arose after the trustees had selected a site for the proposed building, for which a bond issue of \$60,000 had been voted.

—Rockford, Ill. A group of ministers has asked the local board of education to eliminate social dancing in the schools. The members of the board have a strong leaning toward supervised dancing.

—Ironton, Ohio. Alfred Mann, Frank Mann, C. W. Chatfield, and George B. Elkins, members of the South Point Delta High School board of education, and James E. Dickerson, school clerk, have been exonerated of charges of misappropriation of funds, and illegal acts in conducting the business of the board of education, in a recent decision given by the court at Gallipolis.

—The Goshen township board of education near Kenton, Ohio, has consolidated seven rural schools

in two centrally located buildings. As a result, three instructors have been eliminated and the work has increased in efficiency. In working out the plan no bond issue was required. Pupils are transported to the centrally located schools.

—Suit was begun in May in the circuit court at Superior, Wis., to remove Rev. W. F. Hood from membership on the local board of education which dismissed Miss Lulu Dickinson from the high-school faculty. The action was the second suit begun against the members of the school board.

—Minneapolis, Minn. The board of education recently adopted a report of a special committee asking that class rings and pins and commencement invitations for graduation be eliminated and that bouquets be limited to \$1.50 each. It was voted to leave the responsibility of checking expenditures with the parents.

—Mrs. Marion McGee Neville has brought suit against the school board of Lima, Ohio. Mrs. Neville charges that she was wrongfully dismissed and asks \$600 in damages.

—Racine, Wis. The board of education has purchased forty thousand dollars' worth of fuel, supplies, and mechanical equipment for the schools for the coming year.

—Boston, Mass. A study of school planning, prepared by Louis J. Fish, assistant in educational research, and John C. Brodhead, assistant superintendent of schools, has been completed and issued in printed form. The work is in the form of a pamphlet and presents many interesting facts concerning future buildings, the present needs of certain districts, and the effects of shifting population on schools. The conclusions drawn are the result of a study of the population figures for each district, their gains or losses, and a consideration of the buildings already in use. In many cases, additions to the buildings now in use will be sufficient, while in other cases, the erection of new high schools will allow the use of the present ones for intermediate schools.

—The board of education of Jackson, Michigan, has let a contract calling for the delivery of 5,000 tons of coal to the various school buildings. Under the contract, Pocahontas coal was purchased at a price of \$7.75 per ton; West Virginia lump at

(Continued on Page 124)

# The National Surety Company Standardizes on L C Smith

THE BALL-BEARING OFFICE MACHINE

A LARGE organization needs a versatile typewriter. In L C Smith the National Surety Company finds not only a general correspondence typewriter, but a billing and tabulating machine as well.

This is one important reason for L C Smith's wide popularity—but there are other reasons, too. Its ball-bearing construction gives light touch, easy action, speed, so that cost is reduced, the operator's fatigue lessened.

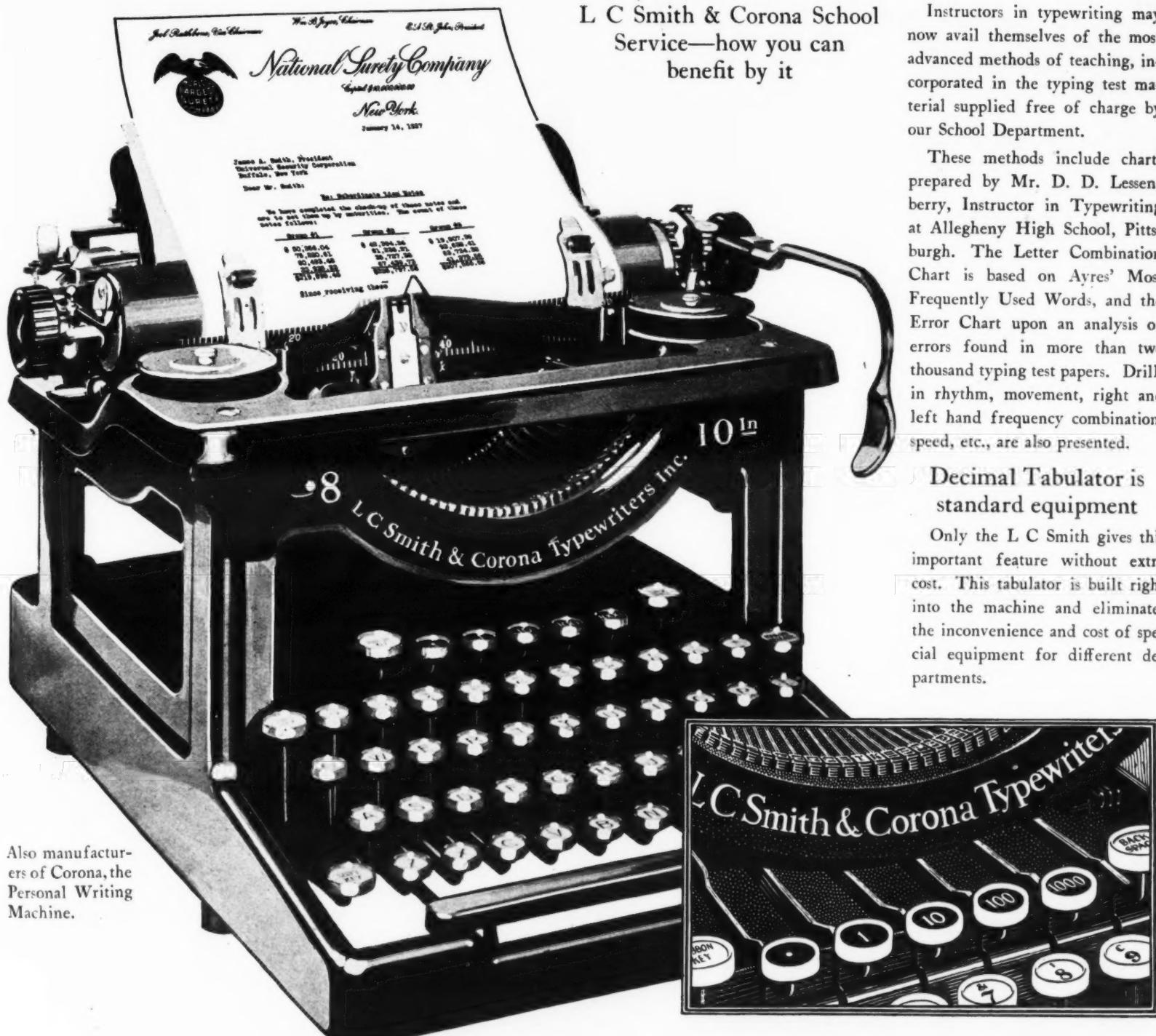
## L C Smith & Corona School Service—how you can benefit by it

Instructors in typewriting may now avail themselves of the most advanced methods of teaching, incorporated in the typing test material supplied free of charge by our School Department.

These methods include charts prepared by Mr. D. D. Lessenberry, Instructor in Typewriting at Allegheny High School, Pittsburgh. The Letter Combination Chart is based on Ayres' Most Frequently Used Words, and the Error Chart upon an analysis of errors found in more than two thousand typing test papers. Drills in rhythm, movement, right and left hand frequency combination, speed, etc., are also presented.

## Decimal Tabulator is standard equipment

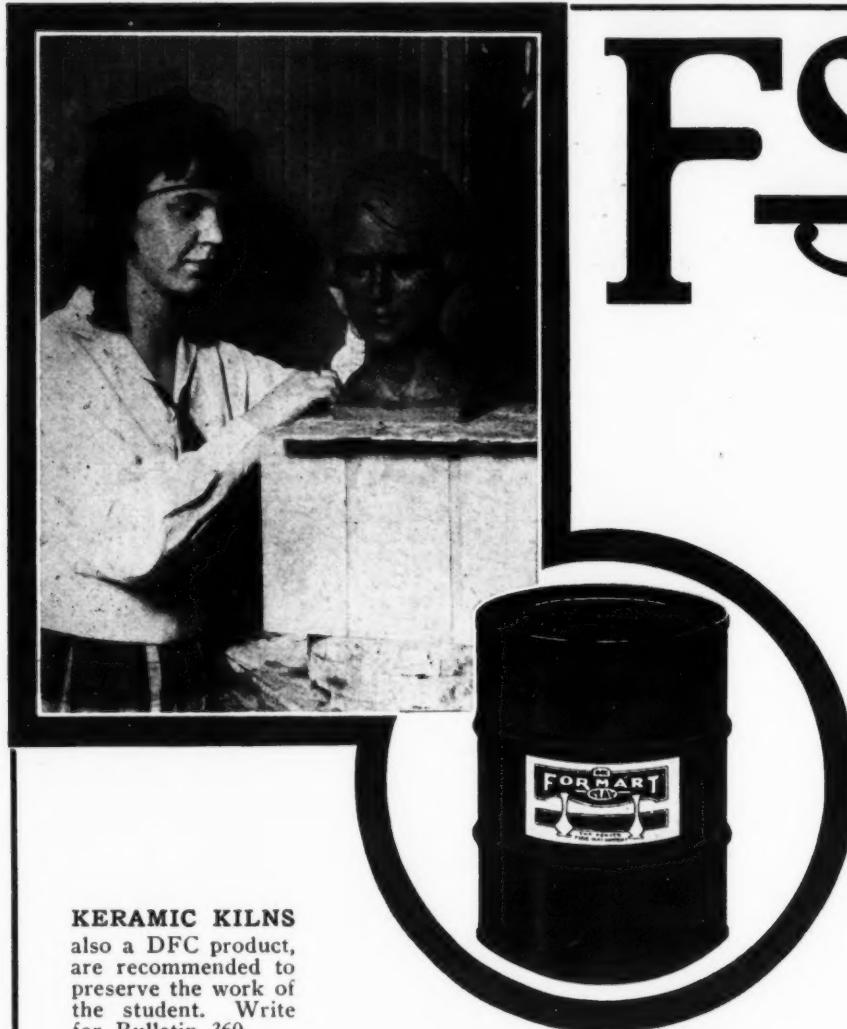
Only the L C Smith gives this important feature without extra cost. This tabulator is built right into the machine and eliminates the inconvenience and cost of special equipment for different departments.



Also manufacturers of Corona, the Personal Writing Machine.

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SCHOOL DEPARTMENT

SYRACUSE, N. Y.



**KERAMIC KILNS**  
also a DFC product,  
are recommended to  
preserve the work of  
the student. Write  
for Bulletin 360.

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PREPARED  
**CLAY**  
MODELING

Like the tin cup and the roller towel, modeling clay that has been made permanently plastic so that it may be used again and again by students must go.

FORMART—a true modeling clay—is a quality product used in higher classrooms for forming permanent works of art similar to the group shown which was executed by a student of the Manual Training High School, Denver, Colorado.

Yet, so reasonable is its cost, kindergarten and primary classes have available in FORMART—a true modeling clay—that can be economically used by giving each child his own piece of clay untouched by other hands.

FORMART comes in 25, 100, 300 and 500 pound metal drums ready for use. Write for our Modeling Clay Bulletin.

## The Denver Fire Clay Company

Denver



Colorado

SALT LAKE CITY

EL PASO

NEW YORK CITY

(Continued from Page 122).  
\$5.40; steam lump at \$5.35; nut, pea and slack at \$4.85.

—City and school officials of Grand Rapids, Mich., have begun a study of the Pulver bill, which recently passed the state senate and which gives members of the state tax department authority to investigate municipal budgets and to make recommendations. The bill requires boards of education and city commissioners to file their budgets with the city clerk sixty days prior to their adoption and also requires publication of the budgets in a daily newspaper.

—Charging that school policies have been formulated secretly and without the full action of the school board, W. L. Mounts, president of the community high-school district board at Carlinville, Ill., has resigned. Mr. Mounts was instrumental in establishing the district and had worked energetically in promoting the completion of its functions.

—St. Louis, Mo. Plans have been formulated for retaining the citizens' school-board committee as a permanent body for the purpose of increasing the public's knowledge of the school organization and curriculum. The committee was active in the last two elections of members of the board. In the future, the committee will undertake a continuous program of "selling" the schools to the people.

—Lynn, Mass. Steps have been taken toward putting into effect the recommendations of the committee of experts who made a survey of the school system. Mr. Ernest Stephens, assistant superintendent and secretary of the school board, was elected to one of the new offices created under the recommendation of the survey committee, that of assistant in charge of secondary education. Other officers to be appointed are an assistant superintendent in charge of business affairs; an assistant superintendent in charge of elementary schools; a director of health and physical training; a director of research; a psychologist; a director of census and attendance; an elementary supervisor, and two home-visiting teachers.

—Seattle, Wash. The National Bank of Commerce, Ferris & Hardgrove, Seattle brokers, and the Harris Trust & Savings Bank of Chicago, were the successful bidders for the \$750,000 bonds of the Seattle schools, which were voted at the March election.

—The school board of Elgin, Ill., has reaffirmed a rule prohibiting dances by student organizations, with the exception of the alumni dance and the regular dancing sessions sponsored by the student council each month. The school officials hold that the meeting of student groups have become more a proposition of informal dances than of business organization and procedure.

—Westmont, Ill. The school board has created the office of school buildings and grounds. The department will direct the expenditure of money for the benefit of the school.

—East Orange, N. J. The board of education has approved a recommendation of Supt. C. J. Scott, providing that the summer term shall begin July 5 and close August 12. The following are the pupils who are eligible to attend summer school:

Pupils who failed to do satisfactory work in one or two subjects, but did not fail so completely as to preclude making up their deficiencies in the six weeks of summer school; students who are able to skip a grade if a brief study is made of the essentials of the major subjects of the intervening grade, and pupils who have not actually failed, but who

### CORPORAL PUNISHMENT

One of the main questions on which parents and teachers should agree is that of discipline. Today most parents are at variance with any form of punishment either mild or severe at school. In such cases children become unruly and are a detriment to the school. So many children are allowed to grow to maturity without realizing that they are members of a great co-operative organization, nor are they taught to appreciate the laws of this organization. When a law runs counter to their personal pleasure, they refuse to obey. This would not be true if every child were made to understand that obedience was his first duty. Prompt, implicit obedience should be a matter of habit. If this habit cannot be developed properly without the use of the strap, then by all means use the strap. It is not always the severity of the penalty but the unvarying certainty of its enforcement that makes it effective.—Eloise Thomas, Principal, Walla Walla, Washington.

need to strengthen their work to assure them of success next year.

—Macon, Ga. The board of education has been given a \$10,000 increase in the annual appropriation to cover the salaries of ten additional teachers and an increased enrollment of 350 students. With the increase, the annual appropriation for the maintenance of the schools totals \$410,249.

—The board of education of Millville, N. J., has won its suit which arose because of a dispute over the delay in the construction of a new high school. The court decided that the city authorities of Millville may not interfere with the operations of the school board and that the board may pay the contractors who built the school. The contractors, in defending their case, held that the delay was unavoidable. The action was begun following the completion of the building and had been in the courts for more than two years.

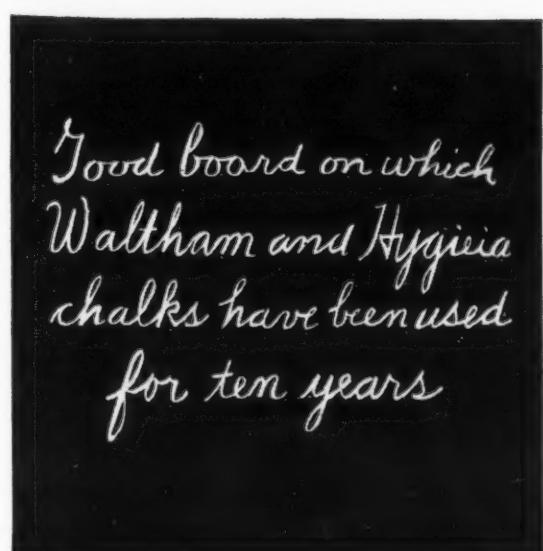
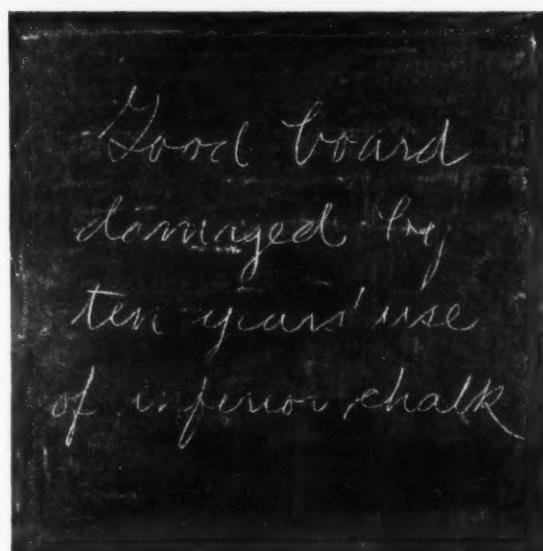
—Plant City, Fla. A friendly suit has been begun in the U. S. District Court to determine the proper settlement of claims of numerous building-supply dealers connected with the building of two schools. A temporary injunction has been asked to restrain the board of education from disposing of a balance of \$14,904 alleged to be due on the contract for two school buildings.

—From Vero Beach, Florida, comes the information that the first election ever held in Indian River county resulted in choosing a school board in every district. Every district in the county voted for a ten-mill levy for school purposes. This will entitle Indian River county to a share of the \$400,000 fund recently appropriated for the schools in the counties throughout the state that voted their full levy for school support. The following were elected in the various districts: Sarah W. Rose, Charles Sembler and L. Ashburner, Sebastian and Roseland; Franke E. Hale, Jesse Dixon and L. A. Sloan, Fellsmere; Dora M. Smith, Vernon Michael and George Sears, Wabasso; S. R. Hamilton, M. B. Mathis and C. A. Lightsey, Winter Beach; Walter S. Buckingham, Paul Luther and James Kugler, Vero Beach; Albert Helseth, Oswald Helseth and Elias Helseth or A. T. Hjorsvick, Oslo.

—The board of education of Cincinnati, Ohio, has decreed that the maximum salaries paid male teachers shall remain at \$3,500. A demand for \$4,000 had been made. "It is time to stop discuss-

(Concluded on Page 127)

— Eliminate the Dust with "Hygieia" Chalk —



## Cleaner Classrooms Longer-Lived Blackboards with "Hygieia" Dustless Chalk

**C**LASSROOM conditions are improved when chalk dust is minimized. "Hygieia" is *Dustless*, for the particles fall into the chalk trough below and *Do Not* float in the air. Clean classrooms make for healthful teaching.

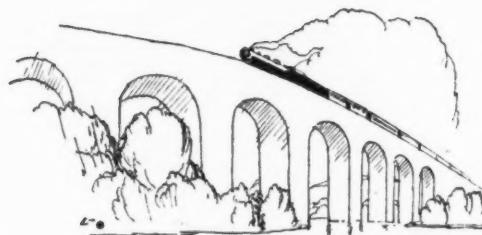
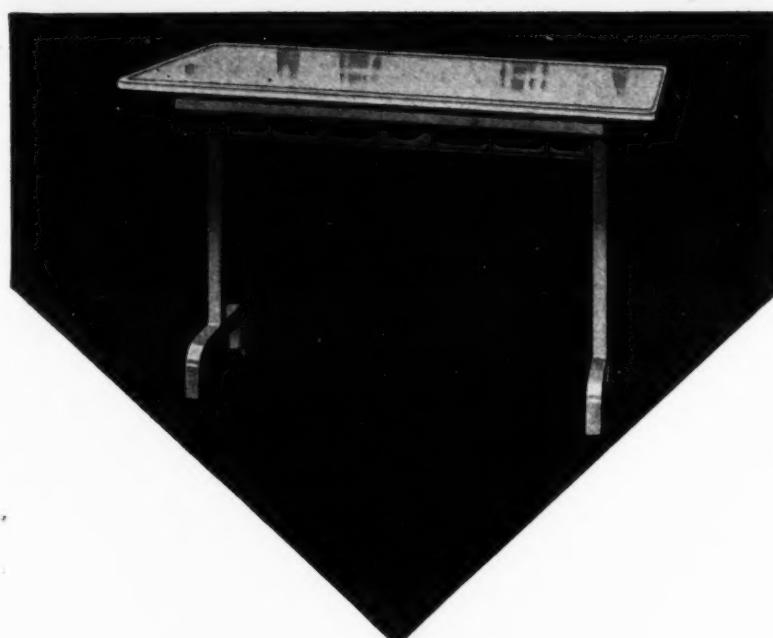
Moreover, blackboards should be protected from injurious deposits. Many dustless chalks contain soap or borax. This forms a greasy deposit in the pores of the blackboard and soon changes the color from clear black to a dirty gray. This greasy deposit defies the most energetic of rubbers and scrubbers and permanently injures the board. "Hygieia" is not only free from grease but contains no scratchy grit or clay. *It Is The Purest, Finest Chalk Obtainable.*

*The result of our long and varied experience in problems of blackboard maintenance is yours for the asking. May we help you with your particular problems?*

Write for catalog and quotations.

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HOME OFFICE AND FACTORIES  
"Old Faithful"  
NEW YORK · DALLAS · SAN FRANCISCO  
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LEADERSHIP SINCE 1835  
92 Years of Faithful Service



**A**LWAYS new! That's the feature that makes a Sani Products installation so satisfactory for you. Ten years from now it will look as bright and attractive as the day it was installed. Send for our catalog of complete cafeteria and restaurant equipment.

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Two Towels Dispensed Instead of One.

## For Greatest Economy Include This New Type Towel

This year, definitely and unwarranted towel waste in your schools. When you specify paper towels, include this proven idea in better, lower cost service—the "double sheet" towel of genuine all-kraft material now used by more than 300 school systems throughout the country. Dubltowls provide savings that far outweigh their reasonable first cost. Smaller in size, they fit the hand—no wasted edges. The double feature prevents the careless user from wasting. *One Dubltowl wipes both hands dry.* No second helping needed. Fewer Dubltowls are used, costs decrease to the minimum all along the line—less janitor service, neater washrooms, cabinets empty half as often. And used Dubltowls, baled and sold as waste, bring a far higher price than other paper towels. Dubltowls are soft, strong, instantly absorbent, and lintless. Made from 100% kraft material. Dispensed—in pairs—from the neat cabinet illustrated above or in your own standard size equipment.

### Dubltowl Specifications

Paper — unbleached, all-kraft stock, free from caustics and chemicals. Size of sheet— $10\frac{3}{4} \times 10$  inches. Packed 150 Dubltowls (300 sheets) to the carton. 25 cartons to the case. Folded double to dispense in pairs.

### Prove the Facts by Trial

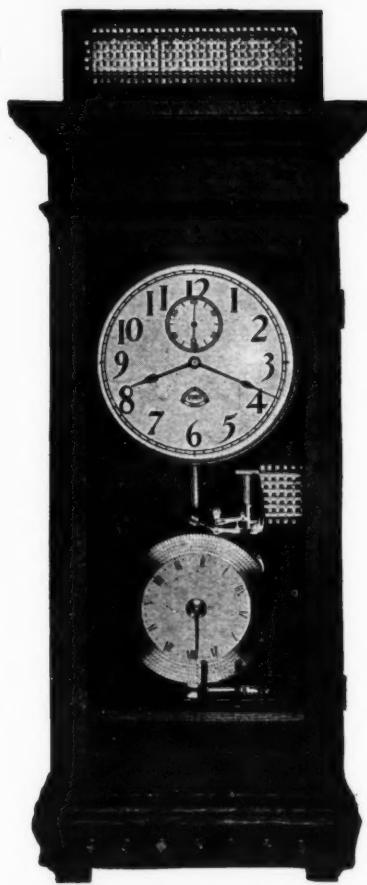
A distributor located near you will show you the advantage of equipping your schools with Dubltowls. Give them a trial in one or two schools and check their economy. Get the proof that Dubltowls stop towel waste!

Request on your letterhead will bring a Bay West Wash-Up Kit—a novel combination of Dubltowls and soap sheets. Fits the door pocket of your auto.

*Write for samples, prices, and name of nearest jobber.*

BAY WEST PAPER CO., Green Bay, Wis.

**DUBLTOWLS**  
"ONE DUBLTOWL WIPES DRY - YOU TRY IT"



FREE ENGINEERING SERVICE  
CATALOGUE ON REQUEST

**MANUFACTURERS OF  
ELECTRIC TIME AND PROGRAM CLOCKS  
FIRE - ALARM AND TELEPHONE SYSTEMS**  
**Our Aim For Nearly Half Century  
TO SUPPLY  
Educational Institutions with the Best  
Equipment Obtainable**

RECOGNIZED BY ELECTRICAL AND MECHANICAL ENGINEERS THROUGHOUT THE COUNTRY AS THE HIGHEST QUALITY, SIMPLEST AND MOST ECONOMICAL EQUIPMENT PRODUCED.

**One Quality—One Price—One Policy**

**The Landis Engineering & Mfg. Co.  
WAYNESBORO, PENNA.**

(Concluded from Page 124)

sion of the salary schedule," said Supt. Randall J. Condon. "Within the next two days I will expect to receive from every teacher an individual communication expressing their views relative to whether or not they desire to continue as teachers at the salary decided upon in the new schedule. Those who are not willing to give their best efforts to the schools will not be given contracts for next year. The board of education does not want and will not have discontent in the teaching staff of the schools."

The board of education of Cambridge, Mass., was considerably disturbed when Mrs. Cornelia J. Cannon, president of a local school association, charged that the services of 29 teachers could be dispensed with without impairing the efficiency of the school system. The board challenged Mrs. Cannon to prove her charges. The latter failed to make reply.

The Port Huron, Mich., board of education is deadlocked over the election of a member of the school board to succeed the late Mr. John L. Black. Dr. John J. Moffett nominated Roy J. Richards and Mrs. Jennie B. Pilkey nominated Dr. W. H. Morris. Each of the candidates received three votes.

The board of education of Hancock, Michigan, recently served as host to the school boards and the superintendents of Houghton County. The dinner was presided over by W. F. Miller, secretary of the Portage township board. Prof. H. D. Lee of the Northern State Normal School at Marquette was the principal speaker. Members of the various boards and several of the superintendents gave short talks which were very interesting. The speakers included: Mrs. Cora A. Jeffers, principal of the Adams township high school; G. W. Bemer, superintendent of the Lake Linden schools; E. A. Hamar, of Chassell, and M. M. Morrison, secretary of the Calumet school board.

About 65 school officials attended the banquet.

Mr. Charles J. Lundberg has been elected as president of the board of education at Rockford, Ill., to succeed John A. Alden.

The school board of Pentwater, Mich., has elected Mr. L. C. Harwood as secretary, to succeed the late A. H. Wayte.

Saginaw, Mich. The rules of the school board have been revised to provide for the transaction of business by standing committees rather than by a

committee of the whole. The change goes into effect in July with the reorganization of the board.

Prof. George D. Strayer and Dr. N. L. Engelhardt, of Teachers College, Columbia University, have been employed by the school board of Westfield, Mass., to make a survey of the high school.

Elsberry, Mo. The board of education has ordered a reduction in the tax rate from \$1.10 to 85 cents on each one hundred dollars' valuation.

Judge Cardozo of the New York Court of Appeals has challenged the right of the Free Thinkers' Society to appeal to the highest court against the ruling permitting children to be excused from classes for religious instruction. The Appellate Division of the Supreme Court had previously ruled that pupils might be permitted to absent themselves from school for the purpose. The action was brought by Joseph Lewis, as president of the Society to restrain Dr. Frank P. Graves, state commissioner of education, from permitting children to leave the schools for religious instruction.

An all-day conference of school boards of Plymouth county, Massachusetts, was held May 12 at the Bridgewater Normal School under the direction of the state education department. Dr. Payson Smith, state commissioner of education, gave a talk on the subject, "Responsibilities in School Administration." Other speakers were Frank W. Wright, director of elementary and secondary education, who spoke on "Teachers' Salaries"; Dr. Frederica Moore, who discussed "The Health of the School Child"; and Arthur B. Lord, who talked on the subject, "The Annual Budget."

Beginning with September, the Montclair Normal School at Montclair, New Jersey, will maintain two classes for the training of teachers in high schools. In establishing a new four-year course for the training of high-school teachers, the state board of education has adopted a policy to discontinue the course for elementary teachers as soon as adequate facilities for training these teachers can be furnished elsewhere.

The Circuit Court at Lansing, Mich., has given a decision holding that the state law of 1925 governing the distribution of primary funds is unconstitutional. The decision upholds the claims of the Detroit board of education that the present system of distributing school moneys is illegal. The Detroit board had brought suit against O. B. Fuller, auditor general, and Thomas E. Johnson, then

superintendent of public instruction. Several small boards in various communities also entered the suit as cross defendants, claiming that under an even distribution of funds, on a basis of school attendance, they could not afford a school system equal to that maintained in larger and more wealthy communities.

The state law of 1925 provided for the distribution among small schools of five per cent of the primary school fund at the expense of the larger communities, notably Wayne.

Akron, Ohio. The board of education has recently refused to pay increases of \$100 a year which had been granted annually to 550 teachers since 1921. It is expected that Akron will lose many good teachers.

Beverly, Mass. The school board has closed the South School, transferred the pupils to the Edwards School, and turned the building back to the city. The change will effect a saving of \$4,000 a year in salaries.

Under the plan, visiting teachers will have charge of the problem and backward children. They will go into the children's homes to interview the parents and view conditions and environment. These teachers often give advice and help that result in a proper parental attitude and an improvement in the children.

Milwaukee, Wis. The school board has been asked to approve a report of the committee on rules governing leaves of absence of teachers. The report asks that the rules relating to sick leaves of teachers be amended to provide that principals or teachers in service more than three years may request an examination by a physician appointed by the school board. Upon his recommendation to the superintendent and the superintendent's recommendation to the appointment committee, they may be granted a leave of absence to the end of the semester, or of the school year as may be necessary.

The number of days for which allowance at half pay may be granted is determined by multiplying the number of years in the service by ten, and subtracting the number of days for which half pay has been granted.

Any principal or teacher returning from sick leave must present a certificate from a physician appointed by the school board before reassignment by the superintendent.

# MILLER SCHOOL WARDROBE

**All Doors  
Open In One  
Operation, Or  
Any Door May  
Be Opened  
Individually**

**For Complete Information Write for Catalogue W-6**

Above is an actual Photograph. There are many advantages in the Miller School Wardrobe; we mention the following:

**Genuine Bangor Slate Blackboard  
Solid Bronze Hardware  
Perfect Ventilation and Sanitation**

**No Petty Pilfering  
Reduction of Heating Expense  
Nothing to Get Out of Order**

**K-M SUPPLY CO. - 123 West 8th Street - KANSAS CITY, MO.**

## NEW RULES & REGULATIONS

### RULES GOVERNING SCHOOL PICNICS

The school board of St. Louis, Missouri, has adopted new rules to govern school picnics. The rules read as follows:

I. The superintendent of instruction may each year grant a holiday for a school picnic upon the written application of the principal, provided that when held, school picnics shall be primarily for the enjoyment of the children and not for the purpose of raising money.

II. The first section of this regulation shall not be construed to prohibit an admission charge intended to cover the expenses incident to the picnic, but such permits shall not be considered as giving authority to the principal to sell tickets promiscuously throughout the neighborhood.

III. When a school picnic is contemplated the principal shall make application, stating the time and place which have been chosen for the holding of the picnic and indicating what admission fee, if any, is to be charged. This application shall be forwarded to the superintendent of instruction for preliminary approval before the signatures of parents are requested.

IV. When the superintendent's preliminary approval has been secured, the principal shall obtain the endorsement of his application by at least twenty citizens who have children attending the school and who shall constitute a committee to cooperate with him in giving the picnic. This application must then be returned to the superintendent's office for final approval.

V. Wherever the parents residing in a school district maintain an organization in the interest of the school, the principal may request the cooperation of such organization in conducting the picnic, in which case the signatures of the president, secretary and treasurer, will be accepted in lieu of the signatures of the twenty citizens referred to. It shall be one of the functions of such organization to select the place at which the picnic shall be held.

VI. The citizens' committee shall, in the request of the principal, obligate themselves to comply with these regulations and to cooperate with

the principal in the conduct of the picnic. They shall elect a treasurer, who shall be a signer of the agreement, and communicate his name to the superintendent of instruction when the principal makes his request.

VII. Blank Form In-23 (one copy only), should be used for the principal's application and for the agreement of citizens or parents.

VIII. The principal shall be responsible for the preparation as well as for the conduct of the picnic. A picnic shall be regarded as a school day in making out the teacher's payroll. Teachers are expected to go to the picnic. Children unaccompanied by their parents shall be conducted back to their school or homes not later than 7:00 p. m.

The principal will be held responsible for the violation of the charter of the board of education or of any rule of the board governing the selection, purchase, or use of books, apparatus, and supplies.

The fact that the superintendent's office may have received a report of the principal indicating irregular expenditures of funds will not relieve the principal of the responsibility referred to in this regulation.

That not more than one school picnic during each year shall be permitted.

The school board has also adopted rules governing school entertainments. These read as follows:

I. A permit for a school entertainment may be granted by the superintendent of instruction on the written application of the principal, provided such entertainment is to be held primarily for its educational value and not for the raising of money.

II. The first section of this regulation shall not be construed to prohibit an admission charge intended to cover the expenses incident to the entertainment, but such permits shall not be considered as giving authority to the principal to sell tickets promiscuously throughout the neighborhood.

III. When a school entertainment is contemplated the principal shall make application stating the time, place, and character of the proposed entertainment and indicating what admission fee, if any, is to be charged. This application shall be forwarded to the superintendent of instruction for preliminary approval before the signatures of parents are requested.

IV. When the superintendent's preliminary approval has been secured, the principal shall obtain the endorsement of his application by at least twenty citizens who have children attending the school and who shall constitute a committee to co-

operate with him in giving the entertainment. This application must then be returned to the superintendent's office for final approval.

V. Wherever the parents residing in a school district maintain an organization in the interest of the school, the principal may request the cooperation of such organization in conducting the entertainment, in which case the signatures of the president, secretary, and treasurer will be accepted in lieu of the signatures of the twenty citizens referred to.

VI. The citizens' committee shall, on the request of the principal, obligate themselves to comply with the regulations and to cooperate with the principal in the conduct of the entertainment. They shall elect a treasurer, who shall be a signer of the agreement, and communicate his name to the superintendent of instruction when the principal makes his request.

VII. A blank form as indicated shall be used for the principal's application and for the agreement of citizens or parents.

VIII. The preparation of the program is entirely in the hands of the principal, and he shall be responsible for the preparation as well as the conduct of the entertainment. He shall see that the program in every way furthers the educational objective of the entertainment. It will not be proper for him to invite parties to cooperate in such an entertainment for a money consideration or for a share of the receipts.

The principal shall be held responsible for the violation of the charter of the board or of any rules of the board governing the selection, purchase, or use of the books, apparatus, and supplies. The fact that the superintendent's office may have received a report of the principal indicating irregular expenditures of funds will not relieve the principal of the responsibility.

### RULES FOR THE PLAYGROUNDS

—Supt. William J. O'Shea of New York City, has asked that principals require the observance of the following regulations governing the use of the playgrounds:

1. Children over 14 years of age are not permitted to use the playgrounds.
2. Only outdoor playgrounds, accessible from the street, are to be used. The use of indoor playgrounds or playgrounds which can only be reached through the building is not permitted.

(Concluded on Page 130)

# \$175.00 In Prizes!

**BEST NAME \$100.00**

**Second Best Name \$50.00**

**Third Best Name \$25.00**

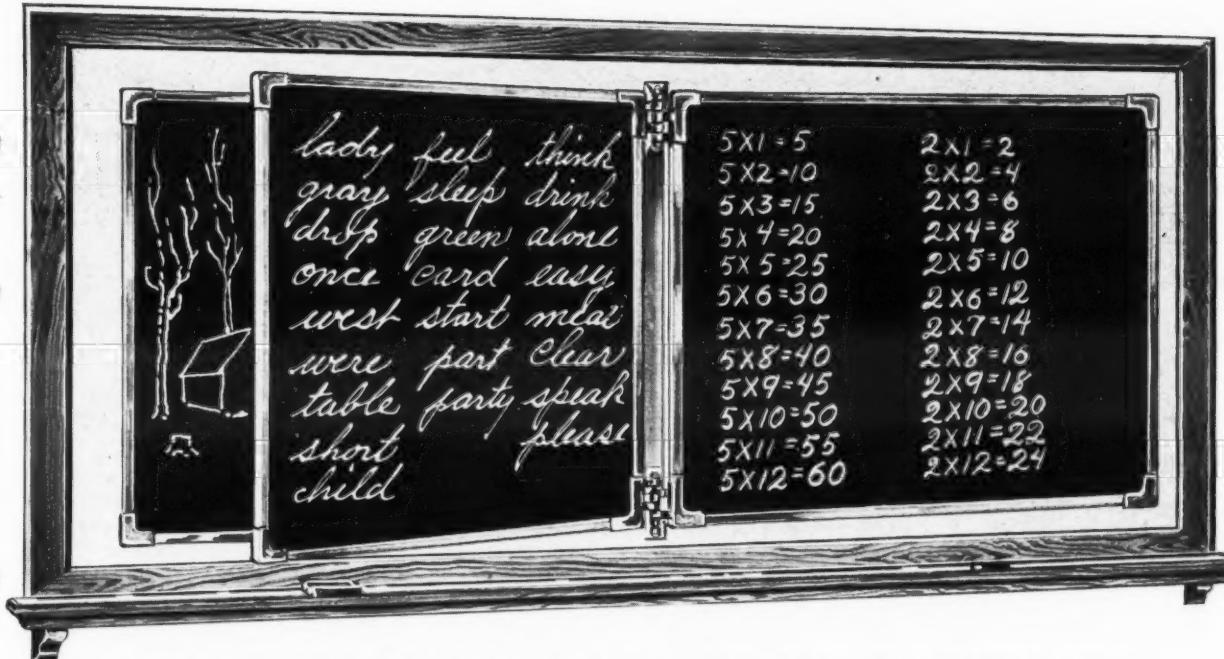
Open to anyone who reads the American School Board Journal  
Not necessary to be a subscriber

## WANTED: A Name for this Teacher's Swinging Blackboard

*"A Lot of Space, in a Little Place"*

HERE IT IS

84 sq. ft. of writing surface  
Genuine Bangor Slate  
Four leaves  
Eight sides  
Each board 42" wide  
36" high



Solid Bronze hinges and corner caps  
Steel binding bronze plated  
Also furnished mounted on steel pipe with fittings

### ADVANTAGES OF THIS SWINGING BLACKBOARD

Lessons kept from day to day, class to class. Lessons prepared in advance and exposed when class is ready. No eye

strain. No light reflection. Handy to the teacher—right by her desk. Special poster notices. Space saver.

K-M SUPPLY CO.  
Kansas City, Mo.

I suggest for your Swinging Blackboard the following name:

Print below

Name.....

Street .....

Town.....

State .....

All answers must be in by  
August 1, 1927.

Winners will be announced in the September issue of the American School Board Journal.



PONCA CITY HIGH SCHOOL  
SMITH AND SENTER, ARCH'TS

In Ponca City, as in Washington, D. C., or out in Denver, or in scores of school districts, Halsey Taylor Drinking Fountains have a reputation for sanitation! Patented features promote utmost drinking convenience with *practical* health-safety! The stream is never too high, never too low, thanks to automatic stream control. And patented two-stream projector serves as an additional safeguard and convenience! Write for interesting details about this modern school necessity!—for replacements as well as in new construction.

**The Halsey W. Taylor Co., Warren, O.**

*Largest Manufacturers of Drinking Fountains Exclusively*

## HALSEY TAYLOR Drinking Fountains

Automatic Stream Control  
Practical Side-Stream



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(Concluded from Page 128)

3. Boys and girls are not permitted, except in the case of specially designated schools, to use the same playgrounds.

4. In schools having athletic centers the present program is to be carried out until five o'clock. The playgrounds, however, are to be open until 6 p.m. Principals in schools having afternoon athletic centers are requested to assist in carrying out the plan of the department of physical education of developing in these after-school athletic centers pupil leaders who will carry over to Saturdays and holidays the spirit and methods of organization prevailing in these centers.

5. District superintendents are requested to make occasional visits to the school playgrounds in their districts and to report to the associate superintendent in charge of playgrounds the conditions observed therein.

6. Principals are requested to keep in touch with the police station in the vicinity and with the patrolmen who aid in supervising the playgrounds; to encourage and develop such auxiliary supervisory support as the school and neighborhood may provide. Such support may include the aid of reliable monitors wearing distinctive badges or other insignia, the aid of socially minded persons in the school vicinity, and the assistance of volunteers suggested and recommended by parents' organizations interested in the welfare of children.

7. Each school should develop a code of ethics especially applicable to playgrounds. Principals should inaugurate a follow-up system by which the incidents of the previous day may be gone over with the pupils for the purpose of commanding good conduct and of remedying defects. The patrolman of the section should be furnished, from time to time, with a list of suggestions.

8. The superintendent of plant operation will issue appropriate instructions to custodians.

It is to be hoped that the partial supervision of the school playgrounds by the policemen will lead to a friendly spirit between the children and the officers; and that there will be none of the too-well-known attitude in which the appearance of an officer was an almost universal signal for flight.

Perhaps, first of all, principals should impress on the children the fact that the officers are their friends, to help them use the playgrounds happily, and are not spies to spoil their pleasure. The patrolmen might be asked to come to the school

assemblies and give friendly talks to the children, thus setting up an entente cordial that formal contacts on the grounds cannot accomplish.

One of the most pleasing and also commonest sights in New York is that of the policemen helping youngsters safely across a thoroughfare. Many a fleet of automobiles has been held while a patrolman takes a child's hand to help him across to safety.

The majority of the policemen have children of their own, and therefore realize just how precious to their families are the boys and girls. They will doubtless be only too glad to lend their help in making the playgrounds a success.

And a more important development might come about if the children become friendly with the policemen. For too long have parents taught their children to fear the officers, by threatening to call in a policeman in order to frighten a child into obedience. The moving pictures usually portray policemen in an unsympathetic light, with the criminal usually the hero suffering from misunderstanding. On the spoken stage all too often the policeman or detective is made a joke and a buffoon.

In the cordial relationships that may spring up between the policemen and the children whom they are to help care for in the playgrounds there may come about a new attitude in the hearts and minds of many children toward the law.

### ADOPT RULES GOVERNING TEACHERS' ABSENCES

The board of education of Bloomfield, New Jersey, on April 4, adopted new rules to govern absences of teachers on its teaching staff. The rules which cover all forms of absence, including personal illness, serious illness or death in the family of the teacher, and weddings in the family, will go into effect in September, 1927. The rules are as follows:

#### Account of Personal Illness

During the first five years of service five days with full pay will be allowed for personal illness. After five days, deduction will be substitute's pay for a period to be determined by the board of education.

From the end of the fifth year of service to the end of the tenth year of service, ten days with full pay will be allowed for personal illness. After ten days, deduction will be substitute's pay.

From the end of the tenth year of service to the end of the twentieth year of service, twenty days

with full pay will be allowed for personal illness. After twenty days, deduction will be substitute's pay.

After the end of the twentieth year of service, as many days with full pay for personal illness will be allowed as the number of years the teacher has taught in the School System. After that number of days' allowance, deduction will be substitute's pay.

In all cases of personal illness covering a period of more than five days, a doctor's certificate must be presented to the board in order to receive credit.

#### Death or Serious Illness in Immediate Family

When death or serious illness in the immediate family of a teacher calls him or her away from schoolwork, an allowance of from one to five days with full pay will be made. The number of days' allowance will be determined by conference with the superintendent of schools.

#### Wedding in the Immediate Family

In case of a teacher's absence on account of a wedding in the immediate family, there will be deducted the substitute's pay for a reasonable number of days. (Immediate family defined:) Father, mother, sister, brother, or grandparent.

The board of education reserves the right at any time to deviate from these regulations.

#### RULES AND REGULATIONS

—The New York City board of education has decided to reorganize the school-luncheon system. Hitherto it has been conducted on the concessionary basis. The school authorities will now take over the several cafeterias and lunchrooms conducted in connection with schools. It is proposed to serve meals at cost and in such a manner as to make the project self-sustaining.

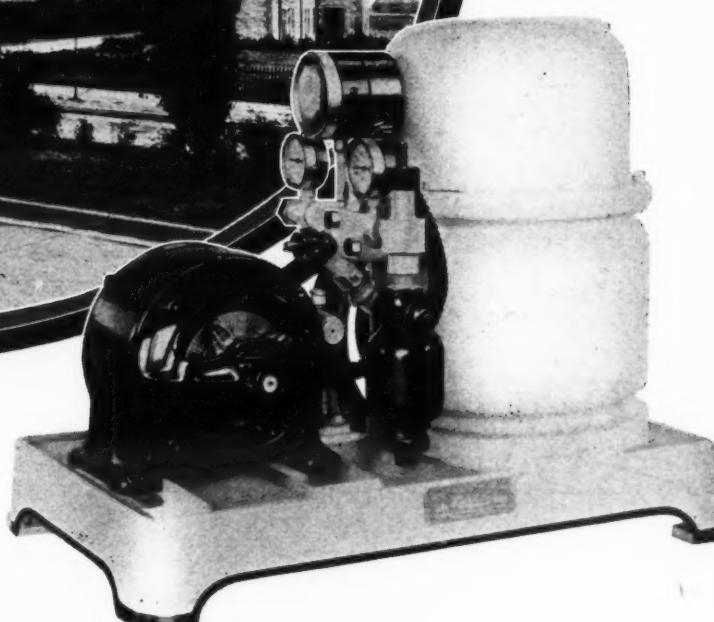
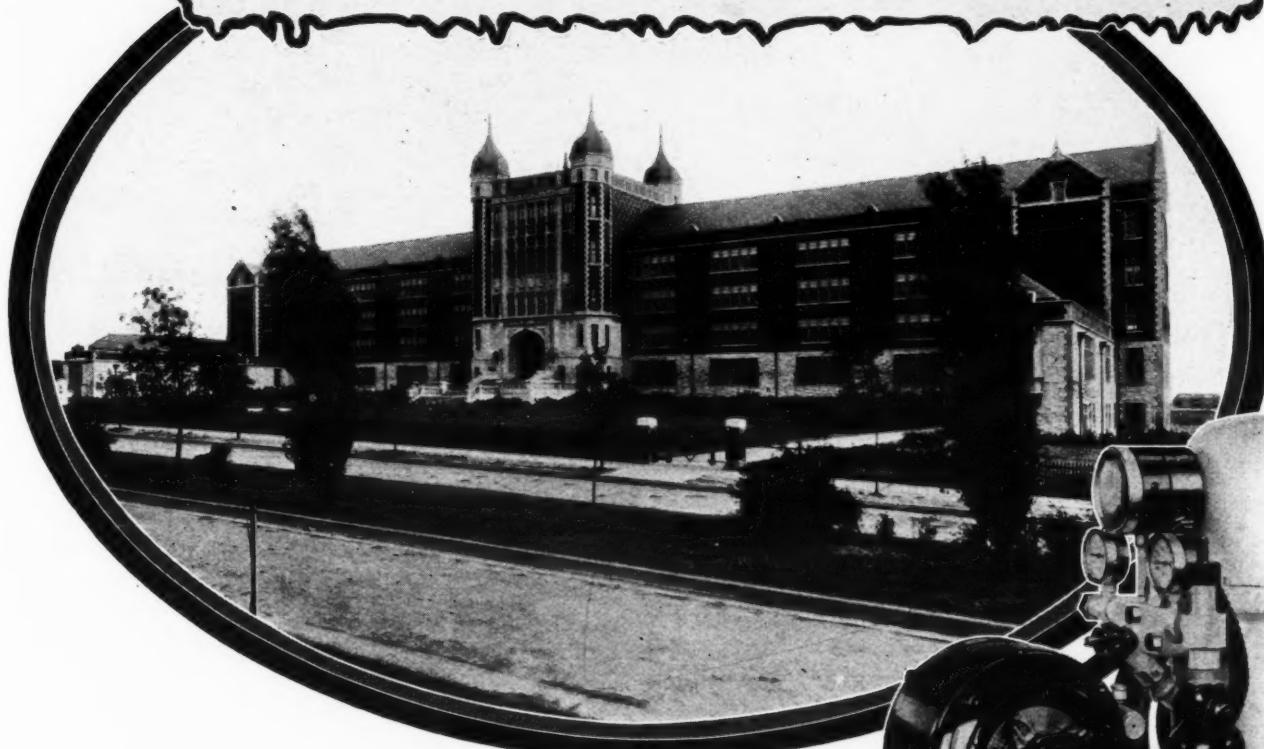
—Yakima, Wash. The school board has been asked to approve a recommendation that only single women be employed as teachers in the schools. Sick benefits for teachers will be discontinued for the coming year.

—New York, N. Y. Under the new rules of the board of education, it is provided that teachers who have left the school system, and who seek reinstatement in the service, must follow the same examination procedure as followed in the case of candidates for replacement on the eligible lists.

Under the regulations, teachers are reinstated in the schools by the board of superintendents, upon the recommendation of the board of examiners.

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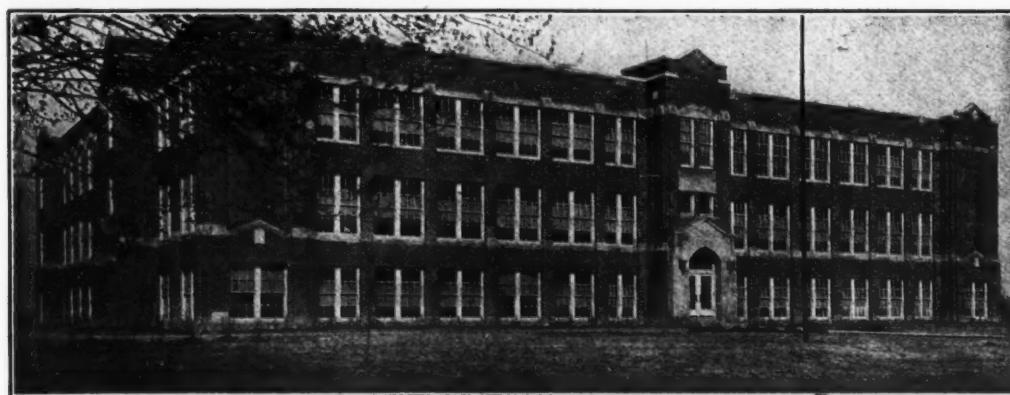
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## TEACHERS SALARIES

### HAMMONTON SALARY SCHEDULE

The board of education of Hammonton, New Jersey, has adopted a salary schedule for the year 1927-28, which provides for four groups of teachers, based on the amount of training, and definite increases for each year of service. Beginning with 1926-27, teachers will advance toward the maximum for their group, and will receive the annual increments until the maximum is reached. Where a teacher is above the maximum for her classification, no salary increase will be given until a year's additional training has been obtained. To be eligible for a position in the elementary or intermediate schools, a teacher must be a graduate of a four-year high school and a two-year normal school. A teacher in the high school must be a graduate of a four-year normal school, college, or university. The schedule takes the form of a single-salary schedule, for it pays the same salary to all teachers with equal training and experience, regardless of their position in the schools.

Under the schedule, teachers who have a two-year normal or college training will begin at a minimum salary of \$1,200, and will advance at the rate of six annual increments of \$75, up to a maximum of \$1,650; teachers who have a three-year normal or college training will begin at a minimum of \$1,330, and will advance at the rate of seven annual increments of \$85, up to a maximum of \$1,925; teachers who have a four-year normal or college training will begin at a minimum of \$1,500, and will advance at the rate of eight annual increments of \$100, up to a maximum of \$2,300; teachers with five years of training, including one year of graduate work for the master-of-arts degree, will begin at a minimum of \$1,700, and will advance at the rate of nine increments of \$125, up to a maximum of \$2,825.

### THE ROLLA TEACHERS' SALARY SCHEDULE

The board of education of Rolla, Missouri, has adopted a salary schedule proposed by the superintendent of schools. The schedule is based on experience in teaching and liberal increments are allowed yearly until the maximum is reached in

seven years. The schedule offers liberal general increases for the teachers who have been long in service.

Under the schedule, elementary teachers are given a minimum of \$675 and a maximum of \$855 for a nine-month term; high-school teachers are given a minimum of \$1,125 and a maximum of \$1,350. Annual increases of \$45 are given to both elementary and high-school teachers.

The compensation of principals, administrators, vocational teachers, and other special instructors is determined independently of the schedule.

### WATERTOWN, N. Y., SALARY SCHEDULE

The board of education of Watertown, New York, has adopted a salary schedule, consisting of three elements, namely, training, experience, and merit. The schedule was made after a careful analysis of salary schedules in New York state and provides eight increments of \$75 each for experience, two increments for thirty hours of additional training in college or normal school, and two increments for exceptional work. Grade teachers with less than two years' training will be paid on the two-year normal-school schedule, provided they receive eight hours' credit for approved work in summer and extension courses, otherwise the salary paid will be the same as in 1926-27.

Under the schedule, teachers are divided into four groups, based on the length and character of the training received. Teachers with a two-year normal training will begin with a minimum of \$1,100. After one year they will advance to \$1,175, after two years to \$1,250, after three years to \$1,325, after four years to \$1,400, after five years to \$1,475, after six years to \$1,550, after seven years to \$1,625, and after eight years to \$1,700.

Teachers in the three-year normal group will begin at a minimum of \$1,250. After one year they will advance to \$1,325, after two years to \$1,400, after three years to \$1,475, after four years to \$1,550, after five years to \$1,625, after six years to \$1,700, after seven years to \$1,775, and after eight years to \$1,850.

Teachers in the four-year A.B. degree group will begin at a minimum of \$1,400. After one year they will advance to \$1,475, after two years to \$1,550, after three years to \$1,625, after four years to \$1,700, after five years to \$1,775, after six years to \$1,850, after seven years to \$1,925, and after eight years to \$2,000.

Teachers in the five-year M. A. degree group will begin at a minimum of \$1,550. After one year they will advance to \$1,625, after two years to \$1,700, after three years to \$1,775, after four years to \$1,850, after five years to \$1,925, after six years to \$2,000, after seven years to \$2,075, and after eight years to \$2,150.

Heads of departments will receive \$200 more than the regular salary for 1927-28 and \$300 more for 1928-29.

Principals of grade schools will receive the same salary as at present, or \$1,400-\$2,000 in primary schools, \$1,650-\$2,250 in intermediate schools, and \$1,900-\$2,500 in grammar schools, plus \$50 extra for eight hours of approved summer-school work.

The salaries of the superintendent of schools, the grade supervisor, the vocational director, the principal of the high school, the school dentist, the physical directors, and other employees will be determined by the board of education.

### A STUDY OF TEACHERS' SALARIES IN KANSAS

Mr. F. P. O'Brien, director of the bureau of research of the University of Kansas, has recently completed a comprehensive study of teachers' salaries in Kansas for the year 1926-27. The data for the study was obtained from the directors of teachers and salaries were obtained from the county superintendent of schools. Information pertaining to first- and second-class school systems was obtained by correspondence with the superintendents of such school systems, and the facts were made available to all county and city superintendents in the state.

The material was divided into four divisions: salaries in one-teacher schools; salaries in elementary schools; salaries in high schools, and salaries of principals and superintendents.

In the one-teacher schools, the median salary was \$90 and the middle fifty per cent received salaries from \$82 to \$100.

In the elementary schools, the median salary in third-class cities was \$104, and the middle fifty per cent received salaries of from \$87 to \$121; in second-class cities, the median salary was \$128, and the middle fifty per cent ranged from \$112 to \$145; in first-class cities, the median salary was \$150 and the middle fifty per cent ranged from \$127 to \$170.

(Continued on Page 135)

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for Teachers

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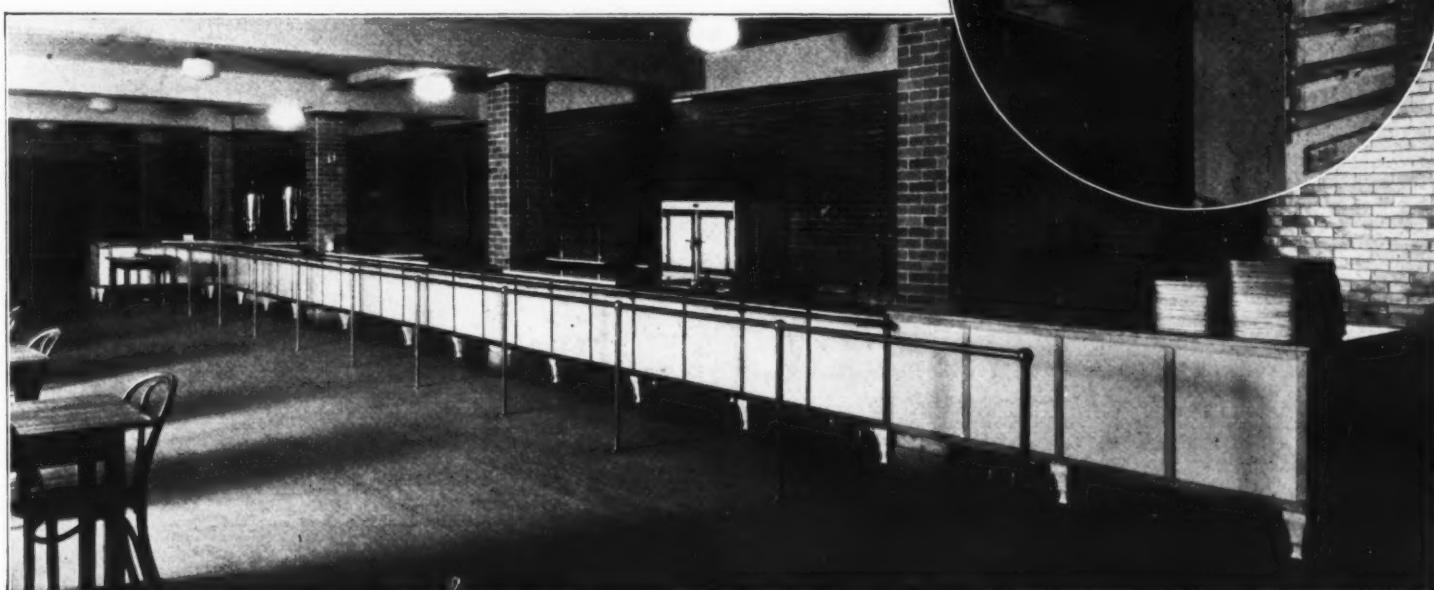
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Lower view, an unusually large cafeteria counter in Charleston High School, Charleston, W. Va.



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# OAKITE

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**Industrial Cleaning Materials and Methods**

(Continued from Page 132)

In the high schools, the median salary in third-class cities was \$157, and the middle fifty per cent received salaries of from \$148 to \$172; in second-class cities, the median salary was \$174, and the middle fifty per cent received salaries of from \$160 to \$194; in first-class cities, the median salary was \$200, and the middle fifty per cent received salaries of from \$179 to \$209.

The median salary for principals and superintendents in third-class cities is \$222, and the middle fifty per cent receive salaries ranging from \$185 to \$244; principals in second-class cities have a median salary of \$247, and the middle fifty per cent receive salaries ranging from \$222 to \$272.

The information obtained from the study would seem to indicate that schools which pay better salaries have better teachers; that low-salaried teachers do not, as a rule, possess effective teaching ability or adequate experience, and that student achievement ranks lower in the schools employing low-salaried teachers. Low salaries usually attract inexperienced teachers, and teachers of mature experience leave the small school and low salary for the larger school with more attractive salary schedule. Other differences between schools may be an influence, but certainly low salaries do not tend to hold good teachers. As an example, it is noted that 84 per cent of the teachers in small high schools with low salaries have less than five years' teaching experience, as compared with 33 per cent of such limited experience in high schools where higher salaries prevail.

—Portsmouth, Ohio. The school board has granted increases of eight and one-half per cent in salaries. The new salaries will mean an increase of \$40,000 in the annual payroll.

—Mansfield, Ohio. The sum of \$5,400 has been taken from the salary schedule for the next year without reducing the salaries of the teachers.

Under the salary schedule, a minimum salary of \$1,000 is provided for grade teachers and a maximum salary of \$1,800. The minimum salary in the junior high school is \$1200 for those having a normal diploma and a maximum of \$1900. The minimum for teachers with college degrees is \$1300 and the maximum is \$2300. In the senior high school, the minimum salary is \$1500 and the maximum is \$2300.

—Barberton, Ohio. The board of education has granted increases of \$50 a year to each of the 123 instructors.

—San Jose, Calif. The city teachers, numbering nearly 400, have presented a petition to the school board, asking for a revision of the salary schedule, providing for a net average increase of \$248 and reaching a total of \$90,000. Under the proposed schedule, the maximum pay for elementary teachers would be \$2400; for junior-high-school teachers, \$2640; and for senior-high-school teachers, \$2820.

—St. Joseph, Mo. The board of education has taken steps toward the adoption of a new salary schedule. Under the proposed schedule, there will be no decreases except the six per cent reduction which will be borne by teachers, as well as employees, from the superintendent down to the janitors and engineers. Teachers will be paid the increases to which they are entitled, but the flat decrease of six per cent will be taken into account in determining the salary to be paid each teacher.

—Indianapolis, Ind. The school board has adopted a single-standard salary schedule, based on educational qualifications and graduated according to number of years of experience. The schedule will add approximately \$55,000 to the annual payroll.

Under the schedule, teachers having the two-year educational requirements will begin at a minimum of \$1300. Teachers with an M.A. degree will advance to the maximum of \$2800 after ten years' experience.

Provisions are made for cadet-teacher classification, under which a teacher with the educational requirements may obtain experience requirements in two years in the Indianapolis schools under veteran-teacher supervision. Cadet teachers may start at \$1000 a year. Second-year cadet salaries will be graded according to educational teacher rates in classes A, B, C, D, and E, representing training of two, three, four years, A.B. degree and M.A. degree. The minimum in A class is \$1300 and maximum \$1800; B class, \$1400 to \$2100; C class, \$1500 to \$2250; D class, \$1600 to \$2550, and E class, \$1700 to \$2800. Cadet teachers in the second year will receive \$100 less than the minimum salaries in their respective classifications.

About sixteen positions, including supervisors, department heads, and members of the superintendent's staff are not included in the schedule.

—Dubuque, Iowa. The new rules of the board of education contain a provision for a special bonus for summer study. Formerly a bonus of \$50 was given to teachers below the maximum for approved study in a summer school of recognized standing.

Under the rules, all teachers will be given the bonus provided they have completed summer courses, regardless of whether they have reached the maximum.

—Marion, Ohio. A new salary schedule has been adopted for 1927-28. Under the schedule, \$90 has been added to the maximum salaries for junior- and senior-high-school teachers and \$45 to the maximum for elementary teachers. The maximum for elementary principals has been increased by \$45.

—Trenton, Mo. The board of education has adopted a high-school salary schedule providing for a graduated scale of salaries. Under the schedule, the average monthly salary for high-school teachers will be \$133.33 for the first year, \$137.50 for the second year, \$140 for the third year, \$142.50 for the fourth year, and \$145 for the fifth year.

—St. Louis, Mo. The salaries of teachers and principals in the summer schools has been reduced twenty per cent. This reduction, together with a curtailment of the sessions, has produced a saving of \$250,000.

—Houston, Tex.—Under a resolution of the board of education, all teachers, principals, and supervisors will be given the regular increases allowed under the old salary schedule, provided such increases are not in excess of the salary maximum set by the schedule. Automatic increases in salary after the spring of 1927 will apply only to those who have completed the minimum of one-half year's service in the local schools.

Under the rules, the increment of increase for transferring teachers from the elementary to the junior high school will be \$100; from the junior high school to the senior high school, \$100; and from a regular teacher to a head teacher, special teacher, or principal from \$200 to \$300. All teachers are required to serve a two-year probationary period when entering the system, and all increments of increase are withheld unless the teacher's work is satisfactory.

—Rolla, Mo. The school board has adopted a new salary schedule, graduated to start inexperienced teachers at a lower salary, and providing for monthly increases of \$5, until the maximum is attained after five or six years. Under the schedule, teachers in the grades will begin at \$75 per month and will reach \$95. In the high school, the range is from \$125 to \$150.

—Worcester, Mass. The school board has voted increases in salary to elementary teachers, principals, janitors, and attendance officers. The in-

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creases which become effective September 1, will add \$160,000 to the annual payroll. Under the schedule, the maximum for elementary teachers is increased from \$1800 to \$2000, with an additional \$200 for college credit.

Under the schedule, the salaries for elementary principals are as follows: Principals of buildings with two, three and four rooms, present maximum, \$2150, 1927-28 \$2250, 1928-29 \$2350; five and six rooms, present maximum, \$2200, 1927-28 \$2300, 1928-29 \$2400; seven and eight rooms, present maximum, \$2275 and \$2375, 1927-28 \$2375, 1928-29 \$2475.

The salaries for junior-high-school teachers, without degrees, are as follows: Junior-high nondegree teachers, present maximum, \$2100, 1927-28 maximum \$2225, 1928-29 \$2350; junior-high degree teachers, present maximum, \$2300, 1927-28 \$2425, 1928-29 \$2550; continuation-school women teachers, present maximum, \$2100, 1927-28 \$2225, 1928-29 \$2350.

The minimum salary for janitors is increased from the present minimum of \$20 to \$25. Janitors now receiving between \$25 and \$35 will be given an increase of 10 per cent, providing that it does not make their maximum over \$35. The increase of \$200 to attendance officers will affect six men.

Sherman, Tex. The school board has adopted new rules governing the minimum and maximum salaries for white teachers. Under the schedule, the minimum salary has been raised from \$90 to \$100 per month, and the maximum is set at \$130 for regular teachers, and \$135 for teachers with twenty or more years of experience.

New Britain, Conn. Under a new rule adopted by the school board, teachers who marry will lose their positions. Referring to some teachers who work after marriage, Supt. S. H. Holmes says: "They would rather have pleasure, fur coats, and automobiles than children and homes."

Somerville, Mass. The school board has adopted a policy not to employ married women as permanent teachers. In case a teacher marries during the school term, her act will automatically act as a resignation.

The board has adopted a resolution prohibiting the existence, or the formation of any secret society in the high school.

The board of education of Greene county, Ind., has adopted a rule whereby no teacher will be employed whose employment would mean permanent tenure under the law.

Houston, Tex. A committee has been appointed by the president of the school board to investigate an accumulative "sick-leave" policy proposed in recent resolutions. The plan provides for an accumulation of the regular number of "sick-leave" days granted each term where these days are not used. The accumulation of days will be made available at a later date if illness requires a longer absence than is provided in the annual leave. The present policy allows ten whole days and ten half days for absence due to illness.

San Antonio, Tex. Beginning with September, a salary-increase schedule for teachers, based on the number of years of experience and degrees held will be put into effect.

Under the plan, forty different salary rates ranging from \$1000 to \$2300 per year are included. The classification is based on four professional groupings: Group one affects teachers who have no diplomas; group two affects teachers with diplomas or permanent certificates; group three those holding A.B. degrees, and group four, those holding M.A. degrees. The classification provides for an annual increase of \$50.

The members of the Wisconsin state assembly at Madison recently received from the teachers' organizations of the state a protest against the Daggett bill, which has been amended to eliminate the teacher's retirement system. There are 12,000 teachers contributing to the fund and 500 are on pensions. The pension law has been twice upheld by the supreme court of the state.

St. Louis, Mo. The school board has revised the rule governing the absence of teachers or principals because of advanced study or personal illness. The rule, as amended, reads as follows:

"Any principal or teacher appointed after the close of the second quarter of the scholastic year shall not receive any increase of salary the next succeeding year, by reason of the annual increase of salaries provided for in the schedule of salaries; but the time of service in a position of substitute shall be reckoned the same as that of a regular appointment in determining salaries. Any principal or teacher who shall be absent more than one quarter in the aggregate during the year shall not receive any increase of salary the next succeeding year by reason of the annual increase of salaries. Provided, however, that when any principal or teacher is granted a leave of absence for the purpose of advanced study, approved by the superintendent of instruction, or because of personal ill-



C 92

**Handsome vitreous china one piece fountain. Combines all the conveniences of the vertical stream with the special slanting stream feature. Glass or cup may easily be filled from it.**

C 147



**A pedestal fixture of galvanized pipe with extra heavy vitreous China bowl and vertico-slant stream. An extra strong fountain for the playground.**

ness, he or she shall upon return to the work be assigned to the scheduled salary to which he or she would have been entitled had the absence not occurred."

Racine, Wis. The school board has been asked to approve a resolution which provides that teachers who participate in political campaigns shall be summarily dismissed. The rule is intended to eliminate complaints of political activities in the schools.

### Teachers Decline Back Pay

Two teachers of New York City, Margaretta Taylor and Florence J. Clark, have returned checks to the board of education made payable in sums of \$3,004.25 and \$1,623.64, representing back salary awarded by the court.

Arthur S. Somers, in bringing the matter to the attention of the board, said: "I have here a most unusual letter. I do not recall that such a thing has been done before in the history of the board." He then proceeded to read the letter, which was addressed to President Ryan and which read as follows:

"We believe in recognized standing and adequate compensation for visiting-teacher work. We did not, however, join in the suit to recover back salary for this period on the ground that we had agreed, in accepting our positions, to do the work, however hard, for a certain sum, however inadequate, and no legal technicalities could make us reinterpret the terms of our original contract. Our convictions remain unchanged and we therefore cannot conscientiously accept the money."

"This is such a splendid example of faithful adherence to a contract entered into in good faith," continued Mr. Somers, "that I think this board could do no less than to express its appreciation to these ladies for what they have done and the example set. Therefore, I move that the board of education express its deep appreciation of the action of Margaret Taylor and Florence J. Clark as made in their letter to the president of the board of education accompanied by the checks referred to, and, further that the president of the board of education be requested to transmit this expression of appreciation to these ladies with the unanimous indorsement of the board of education."

Following the unanimous indorsement by the board, Mr. Somers said: "My only regret is that the board has no other alternative than to accept the checks."



# These hospitals and institutions have all installed VULCANS



*St. Rosalia Foundling Asylum and Maternity Hospital, Pittsburgh, Pa. Vulcan installation by the Equitable Gas Company of that city.*



*Emergency Hospital, Washington, D.C. Vulcan installation by Dulin & Martin, Washington.*



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*West Suburban Hospital, Chicago, Ill. Vulcan installation by Albert Pick & Company, Chicago.*



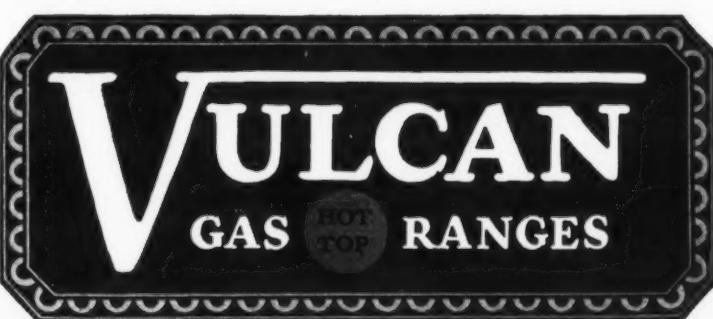
*Kitchen in the Hospital of Joint Diseases, New York*

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Whether you are re-equipping an old kitchen, planning a new one, or just thinking it over, you should keep the Vulcan facts handy. Send for your free copy of the Vulcan book. Hotel Dept., Standard Gas Equipment Corp., 18 E. 41st St., N.Y.

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*Jewish Hospital, St. Louis, Mo. Vulcan installation by B. Glockler Company, Pittsburgh, Pa.*



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CHICAGO

## SOME SCHOOL BUILDINGS OF MODERATE COST

(Continued from Page 64)

On the first floor there are three standard classrooms with built-in wardrobes. Each of these rooms accommodates 42 pupils. There are also on this floor a commercial department, a recitation room seating 25 pupils, a principal's office with waiting room, a supply closet, a teachers' room, toilets, and other accommodations.

The assembly room at the back of the building may be entered from the main corridor or from separate entries. It is equipped with a stage and has a flat floor so that it can be used for gymnasium purposes.

On the second floor there is a study hall with seats for 60 high-school students. A laboratory immediately adjoins the study hall and may be entered either from the study hall or from the corridor. The physical and chemical laboratories are so arranged that the lecture room, which is between them, will serve both rooms. A standard classroom seating 42 pupils, is also on this second floor. Emergency toilets for boys and girls are provided.

The construction of the building is similar to that of the Hillsboro high school described above. Each of the rooms, however, occupied for instructional or assembly purposes, is provided with a unit ventilator.

The building was completed at a total cost of \$95,000, including heating, plumbing, and electrical work.

### The George S. Ball School

The George S. Ball School at Upton, Mass., has been planned for three teachers and the layout has been so made that additions can be provided as the enrollment grows and as the opportunity presents itself for widening the school program.

The basement contains a large room for serving lunches and another room for play purposes. There are also in the basement boys' and girls' toilets, a boiler room, a fuelroom, and a pump-room for the water supply.

The main floor contains three classrooms, each arranged for 42 pupils and fitted with wardrobes of the Chicago type. A teachers' room occupies the end of the corridor.

The basement walls and partitions are constructed of concrete and tile. The exterior walls above the basement are of frame with wire lath and cement stucco finish. The interior walls are finished with hard plaster on wire lath. The blackboards are of natural slate. The building is heated with steam and ventilated with a natural gravity system. The latest type of plumbing fixtures are installed and an electrically operated fire-alarm system has been provided. The water is supplied by means of an automatically operated pump.

The building cost \$20,192, including heating, plumbing, and electric work.

### The Erving Grammar School

Graded school No. 1 at Erving, Mass., is a one-story building, providing for the instruction of children in the four lower grades. The ground floor contains separate playrooms for boys and girls, separate toilets, boiler room, and a fuel-room.

On the first floor there are four standard classrooms, seating 42 pupils each and provided with built-in wardrobes. A folding partition has been placed between two of the rooms so that these can be used for general school gatherings, entertainments, and other assemblies. The teachers' retiring room and toilet has been placed on a landing above the rear stairs.

The building is constructed with exterior walls of brick and tile, trimmed with cast stone. The partitions on the ground floor are of tile

and on the first floor of frame with wire lath and hard plaster. Classrooms have metal ceilings, hardwood floors, and natural slate blackboards. The ceilings in the basement are of cement plaster on metal lath.

The heating plant consists of a low-pressure boiler, which supplies steam for direct radiation in the classrooms, etc. The ventilation is of the unit type. The plumbing is of the latest type and an electric fire-alarm system has been installed.

The building cost \$38,071, including heating, plumbing, and electrical work.

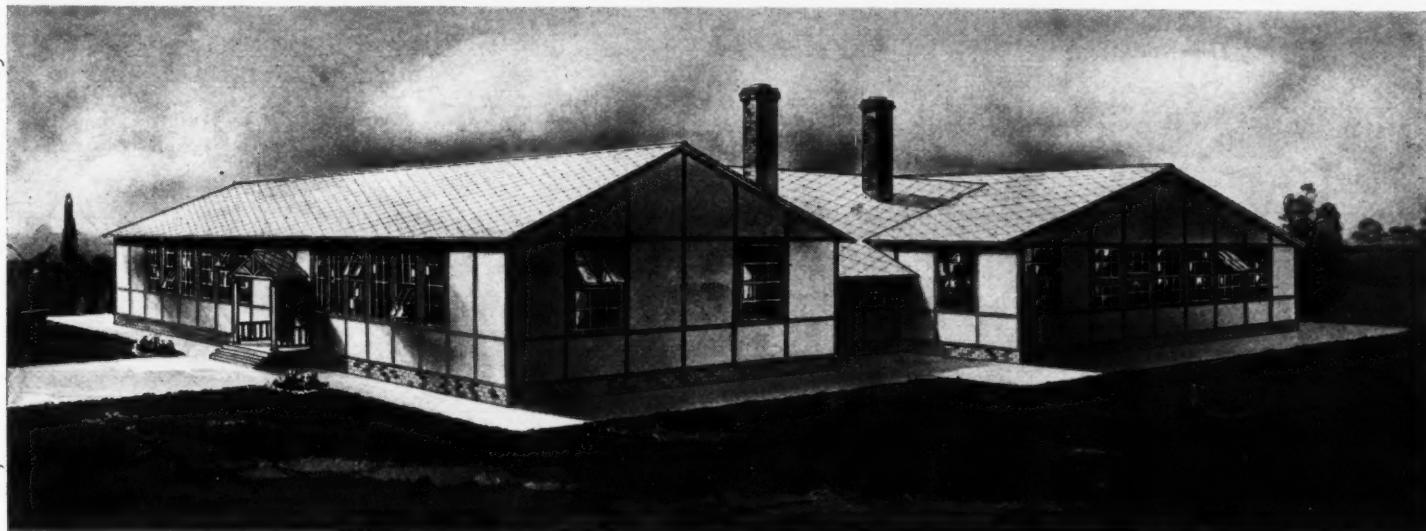
### The Hillsboro High School

The new high-school building at Hillsboro, Mass., has been planned to solve the difficult problem of providing for complete high-school facilities in a small community, and of affording the necessary space for community gatherings and social entertainments of various kinds. The building has been planned so that the ground floor is entirely above grade.

The main feature of the building is a large gymnasium and assembly hall which has been planned with a separate outdoor entrance and has been equipped with a stage and dressing rooms. The floors, the walls, the ceilings, and the lighting have been all studied so that the room can be used for the greatest variety of purposes. This has been done chiefly by careful selection of materials and colors so that the effect is dignified and so that the room will show the least wear and tear.

Another important room on the ground floor is that devoted to manual training. This room has adjoining it a stockroom. It may be entered from outdoors and the separate entrance is large enough so that a farm wagon or an automobile may be driven in directly.

The boys' and girls' toilet rooms are fitted  
Concluded on Page 140



4 CLASSROOMS—CLOAKROOMS, TOILETS, AND STORAGE

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"The Liberty" Fireproof Asbestos Schools are approved by the State Department of Public Instruction of Pennsylvania and New Jersey as **Permanent School Buildings**.

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**TEN REASONS WHY YOU SHOULD ERECT**

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Safety to pupils by reducing fire hazard to a minimum. Fireproof Asbestos material is provided upon both the interior and exterior walls, and as well as upon the ceiling. The roof is also fireproof.

Superintendents, Principals, and Teachers will readily appreciate the fact that Fireproof Asbestos School Buildings are planned to insure the maximum in safety, comfort, and convenience, for both pupils and teachers.

Note carefully that the length and width of classrooms have been planned along the most scientific lines. Liberal aisle space simplifies the problem of supervised study and grants that freedom to pupils which is so necessary in health exercises. A false economy, detrimental to the welfare of the school and the functioning of the same, has been frequently experienced by making classrooms too narrow.

A well-lighted coatroom, under the direct supervision of the teacher, is a co-ordinate part of a modern classroom. Each room is so provided.

Ample storage space is provided for books and equipment.

The vestibule cuts wind-sweeps, offers additional protection to pupils, and automatically reduces the cost of heating.

The roof construction and special factors of safety employed in the buildings bear and are well worthy of special consideration.

The exterior design contributes materially to the aesthetic setting and harmonious balance of the school grounds landscaping.

The plans provide Legal seating capacity for forty (40) pupils and comply with the requirements of the School Law, which requires that there shall be provided 20% light area, 200 cubic feet air space, and 15 sq. ft. of floor area per pupil, and these "Liberty" Fireproof Asbestos School plans are approved as **Permanent Buildings** by the State Departments of Public Instruction of both Pennsylvania and New Jersey, and no doubt will be approved by adjoining States.

Provision is made for future additions.

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## Insist on time-tried and approved Buffalo-Carrier equipment

(Concluded from Page 138)

with showers and wash basins and are so located that they serve the greatest possible requirements and are accessible equally from the manual-training shop, the gymnasium, and the school as a whole. Economy in the arrangement of fixtures, etc., has been given especial study by the architects.

The fuel and boiler rooms are also on the ground floor, and there is a storage room for the janitor.

On the first floor there are two standard classrooms for grade use, seating 42 pupils each. There are also two rooms for the commercial department, a principal's office, and an office for the superintendent of schools. The partition separating the corridor from the upper part of the gymnasium is glazed so that the corridor may be used as a gallery when exhibition games are being played on the floor. It is interesting to note that the typewriting room is located in a corner where it is so far as possible shut off from the balance of the school in order that the noise may not disturb other classwork.

On the second floor there are two standard classrooms separated by a folding partition. These classrooms adjoin the library and it is possible to use the entire group for study-hall purposes. There are also on this floor a series of rooms for the domestic-arts department, a science laboratory and lecture room, and a recitation room. The last mentioned room will seat 25 persons. There are ample wardrobes, closets, and storerooms on this floor, and space above the stair landings is utilized for emergency toilets.

The building has been planned and constructed for the greatest possible economy and for permanence and low upkeep. The exterior walls are of brick and hollow tile and are trimmed with cast stone. The roof is of tar

and gravel and all flashings are of copper. The partitions on the ground floor are of brick over tile. The corridor walls and stair walls and the corridor floors as well as the stairs are fire-proof. Classroom partitions are of frame with wire lath and hard plaster. The ground-floor ceilings are of cement plaster on wire lath, and the first and second floor ceilings are of metal. The floors are of rock maple and the wood trim throughout has been stained. The blackboards are of slate.

The sanitary equipment includes plumbing of the heavy-duty school type and a steam vapor heating system.

The building cost \$59,893, including plumbing, heating, and electrical work.

### The Morningdale Graded School

The Morningdale graded school at Boylston, Mass., has been planned and built to serve a rural community where there is need not only for school facilities, but also a community center where small gatherings may be held. The basement has been arranged so that it is well out of the ground and there is ample light for the large playroom.

The first floor contains two standard classrooms separated by means of a folding partition. Each room seats 42 pupils and is lighted from one side only. Coatrooms are provided.

The building is heated by a steam gravity system with separate fresh-air inlets and indirect radiators in the basement. The building has its own automatic water system for drinking water and sanitary water supply.

The basement walls are of concrete and the balance of the building is of ordinary frame construction.

The total cost, without furnishings, was \$16,500.

### The Fitzwilliam High School

The high-school building at Fitzwilliam, N.

H., is a two-room school serving a rural population. The ground floor, which is well above grade on the front and one side of the building, contains a large room for farm mechanics and a smaller room which may be fitted up for domestic arts. On the first floor there is a large room which serves for assembly, study, and recitation purposes. There is also a small class or recitation room. Toilets for boys and girls and special wardrobes are provided.

The foundation of the basement walls up to the first-floor level, are of concrete, and the remaining walls are wood frame with clapboard. The roof is covered with asphalt shingles and the classroom floors are of maple. Chemical toilets are provided. A furnace provides heat and ventilation.

The building cost \$9,768.84, including heating, plumbing, and electrical work.

### SCHOOL ADMINISTRATION NOTES

—Corinth, N. Y. The administrative department has added a number of teachers to the faculty for the next year. Miss Mary Barlow has been elected to serve as head of the high-school English department; Miss Winifred Precht will teach Latin and German; and Mr. Russell Seavey will be instructor in science and commercial subjects.

—Rochester, N. H. The Rochester weekly newspaper gives more space to school news than does any other paper in New Hampshire.

—Aurora, Ill. The west-side board of education has completed plans for the enlargement of two grade schools, for the distribution of pupils of the Todd School, and for meeting the future growth of the school district.

It appears that an increased enrollment in the west-side schools has indicated that additions would be needed to house the pupils. A survey was conducted in October last with the aim of beginning a twenty-year building program.

After a careful study of the distribution of the pupils and the financial condition of the district, the board of education adopted a practical program to care for the immediate needs of the school district.

## To Make Your School Building Attractive

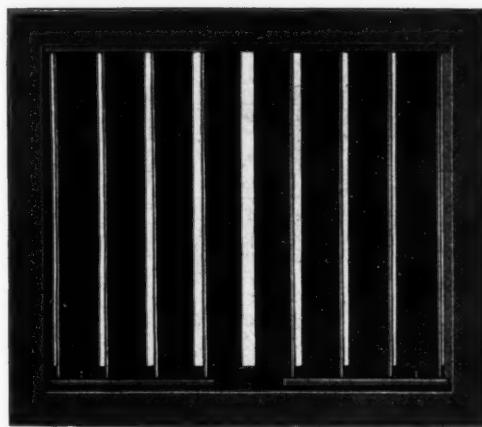


PLATE K-88

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To provide more effective distribution of air from supply opening. Vertical blades adjustable. Felt strips prevent dirt streaks on wall.

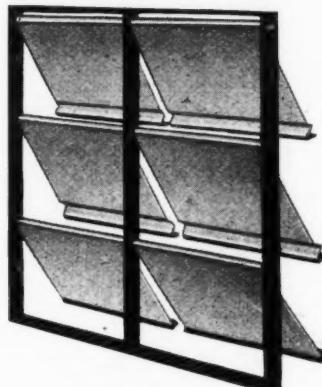


PLATE BPD



PLATE F-3-BPD

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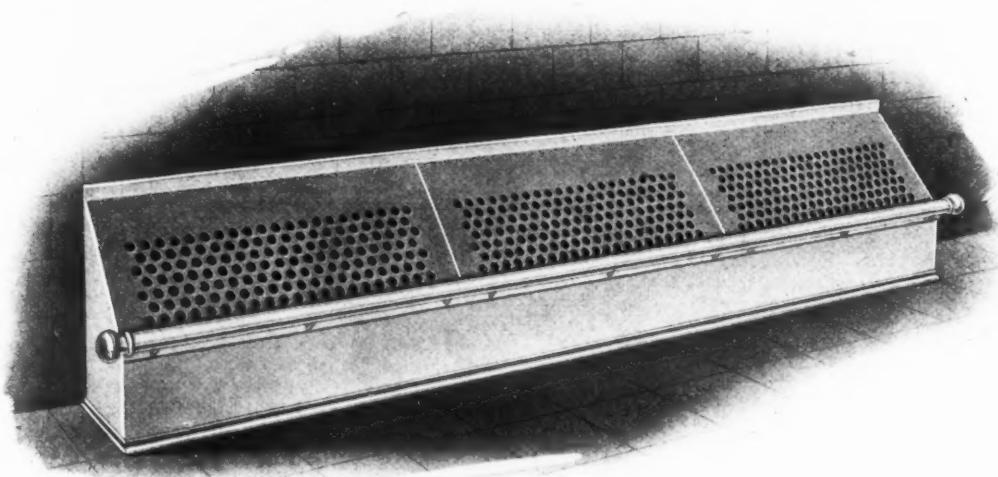


PLATE F-151  
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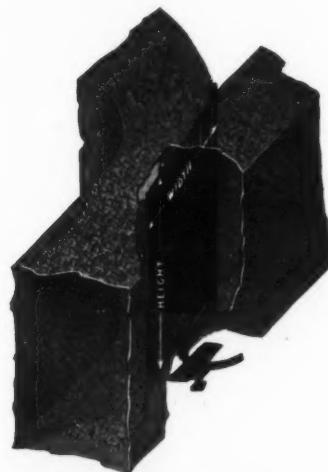


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Detroit, Mich.

Technical High School,  
Omaha, Nebr.

## PERSONAL NEWS OF SCHOOL OFFICIALS

—Cecil L. Henry is the new member of the Tulsa, Okla., board of education.

—After a deadlock which lasted for some weeks, the board of education of Springfield, Mo., elected G. G. Lydy as its president to succeed Thomas Watkins.

—The new members of the Rockford, Ill., school board are Charles Lundberg, George H. Johnson, Mrs. Arthur D. Logan, Mrs. Ernest Paget, Frank S. Pearce, and Clarence J. Goodwillie.

—Walter S. Cate was reelected president of the Ashland, Wis., board of education. John T. Kendrigan was reelected vice-president.

—James A. Hemingway is the newly appointed member of the Chicago board of education.

—The eight school trustees who were elected in Travis county, Texas, are D. E. Edmonson, Weberville; A. Loman, Round Mountain; C. A. Flink, Decker; J. H. Norwood, Garfield; F. A. Stiger, Richland; A. W. Johnson, Elroy; Otto Marx, Cedar Valley.

—The new members of the San Diego, Calif., school board are Mrs. Vesta Muehleisen and Orton E. Darnell. The holdover members are Miss Julia Pickett, Claude Woodman, and Jacob Weinberger. Mr. Weinberger was elected president.

—The Colorado school-board elections resulted in naming the following members: Colorado Springs, William Mason, Jr., A. H. Jordan; Brush, O. B. Schooley; Arvada, C. R. Buck; Breckenridge, George Robinson; Cheyenne Wells, J. W. Shy; Lafayette, Mrs. C. A. Rossiter; Boulder, Henry M. Sayre, Dr. Carbon Gillaspie; Windsor, T. G. Gullison, Dr. T. B. Gormley; Steamboat Springs, Elmer E. Baer; Fort Morgan, Willard Reid, R. B. Spencer, James E. Work; Petersburg, Harry Hivey, Leslie Paul; Longmont, A. H. Lauenstein, Mrs. Ella Payne; Fort Lupton, W. A. Ewing.

—At Greeley, Colo., J. E. Snook was elected president of the school board and Charles A. Jenks, secretary.

—The Wren, Ohio, school board elected Frank Bowen as its president. The Willshire, Ohio, school board elected W. A. Coulter, president.

—At Denver, Colorado, Harold O. Bosworth was elected member of the board of education by a vote of 6,578 out of 7,198 votes cast. Other members elected were Mrs. Margaret Evans and Margaret P. Taussig, each receiving over 6,000 votes.

—The two newly elected members of the Fairbury, Nebraska, school board are Dr. J. H. Bond and Homer S. Yeakle. The board elected as president, J. A. Axtell, vice-president, C. J. Galbraith, and secretary, Mrs. F. L. Rain.

—R. M. Sensenbrenner of Menasha, was appointed a member of the vocational board of education to succeed H. E. Landgraf.

—The school board of La Harpe, Ill., elected F. E. Gleize of Green Valley, Ill., superintendent of schools at \$2,400 a year. The Ridgeform, Ill., high-school board elected F. C. Turner as principal.

—The new school board of Grant township, near Libertyville, Ill., consists of Earl Rushmore, Thomas E. Graham, William Nagel, George Kay, and William Tonyan.

—Mr. John F. Rohn has been elected president of the board of education of Fremont, Nebr., for a fourth consecutive term.

—Mr. R. D. Troutman has been elected a director of the school board at Fossil Creek, Colo., to succeed O. G. Reed, who retires after a service of 23 years.

—Dr. J. P. Browne, 62, president of the consolidated school board of Plainfield, Ill., died May 3 at his home after an illness of several months. Dr. Browne came to Plainfield in 1893 as superintendent of schools. In 1901 he left the schools to complete his course in medicine, graduating from the Chicago College in 1905. After entering upon his duties as a physician, Dr. Browne continued his interest in school affairs and in 1910 was elected to the school board on which he served for three years. For the last seven years he had been president of the school-district board but was not a candidate for reelection this spring.

—Mr. George J. Ryan has been unanimously reelected as president of the board of education of New York City for the coming year. Mr. Ryan is now serving his sixth year as head of the New York City board of education and is the first man to attain that distinction.

In his inaugural address, Mr. Ryan pointed out that in the past the board has been occupied largely with certain mechanical aspects of education—the erection and equipment of school buildings and the alteration and repair of certain older buildings. With the accomplishment of the building program in prospect, the board of education can now turn its attention to educational policies.

—Dr. Frederick L. Bogan has been elected as president of the Boston school board for a fourth successive term.

—The Virginia Education Association presents the name of Miss Cornelia S. Adair, a high-school classroom teacher, for the presidency of the N. E. A. She holds several college degrees and her educational activities in Virginia have taken a wide range.

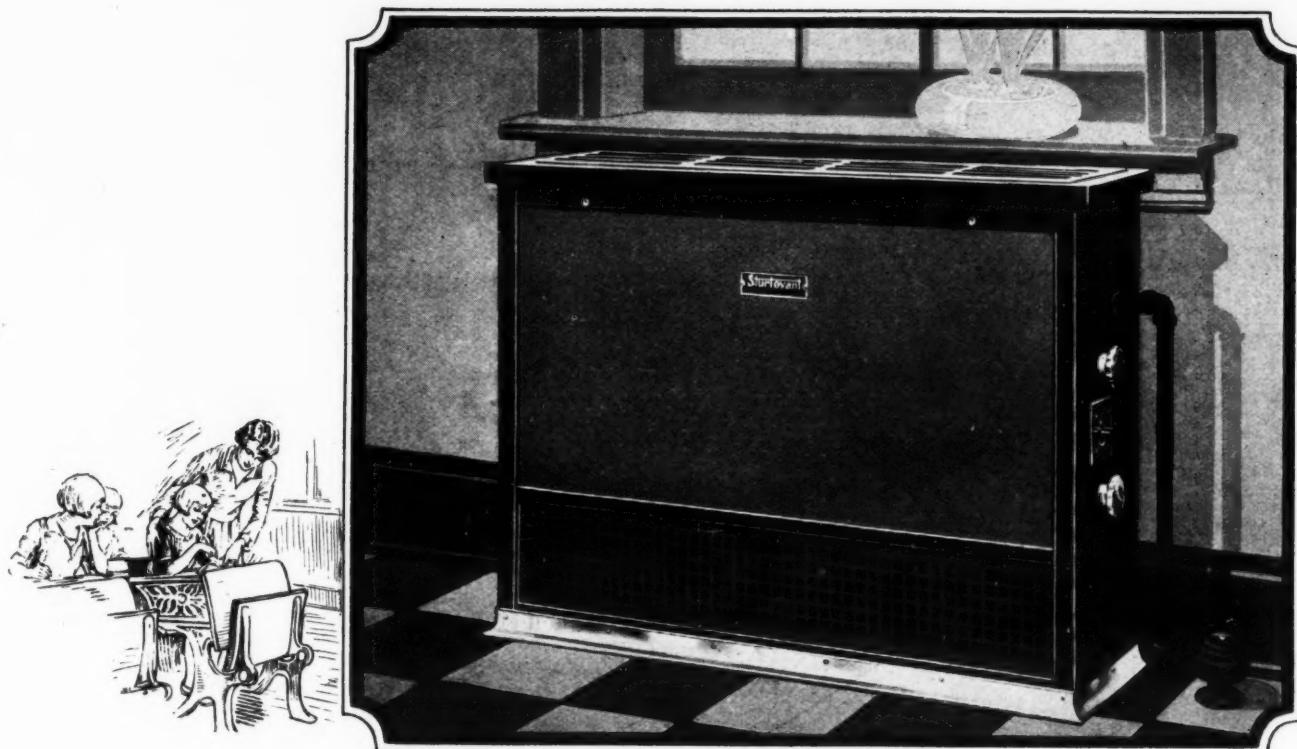
—Mrs. L. C. Fillmore, who has been a member of the Cincinnati, Ohio, board of education for six years, was elected president of the Union Board of High Schools to succeed former Judge John G. O'Connell. Maurice J. Freiburg was named vice-president.

—Mr. Christopher C. Mollenhauer has been appointed by the mayor as a member of the New York City board of education for a term of seven years. Mr. Mollenhauer succeeds Dr. John A. Ferguson, whose term expired recently. Dr. Ferguson, while a member of the board, held the important position of chairman of the building sites committee.

—Mr. Harry S. Cox, superintendent of the Covington, Kentucky, schools since 1912, died May 25 at his home in that city. Mr. Cox had been ill for a number of months.

—Supt. John B. Dougall of Summit, New Jersey, has been reelected for a term of three years, at a salary of \$7,000 per year.

—Mr. R. L. Irle, formerly superintendent of schools at Wells, Minn., has been elected to a similar position at Glasgow. Mr. A. H. Granger of Annandale, Minn., has been elected to succeed Mr. Irle at Wells. Both Mr. Irle and Mr. Granger are graduates of Hamline University and have completed postgraduate work at the University of Minnesota.



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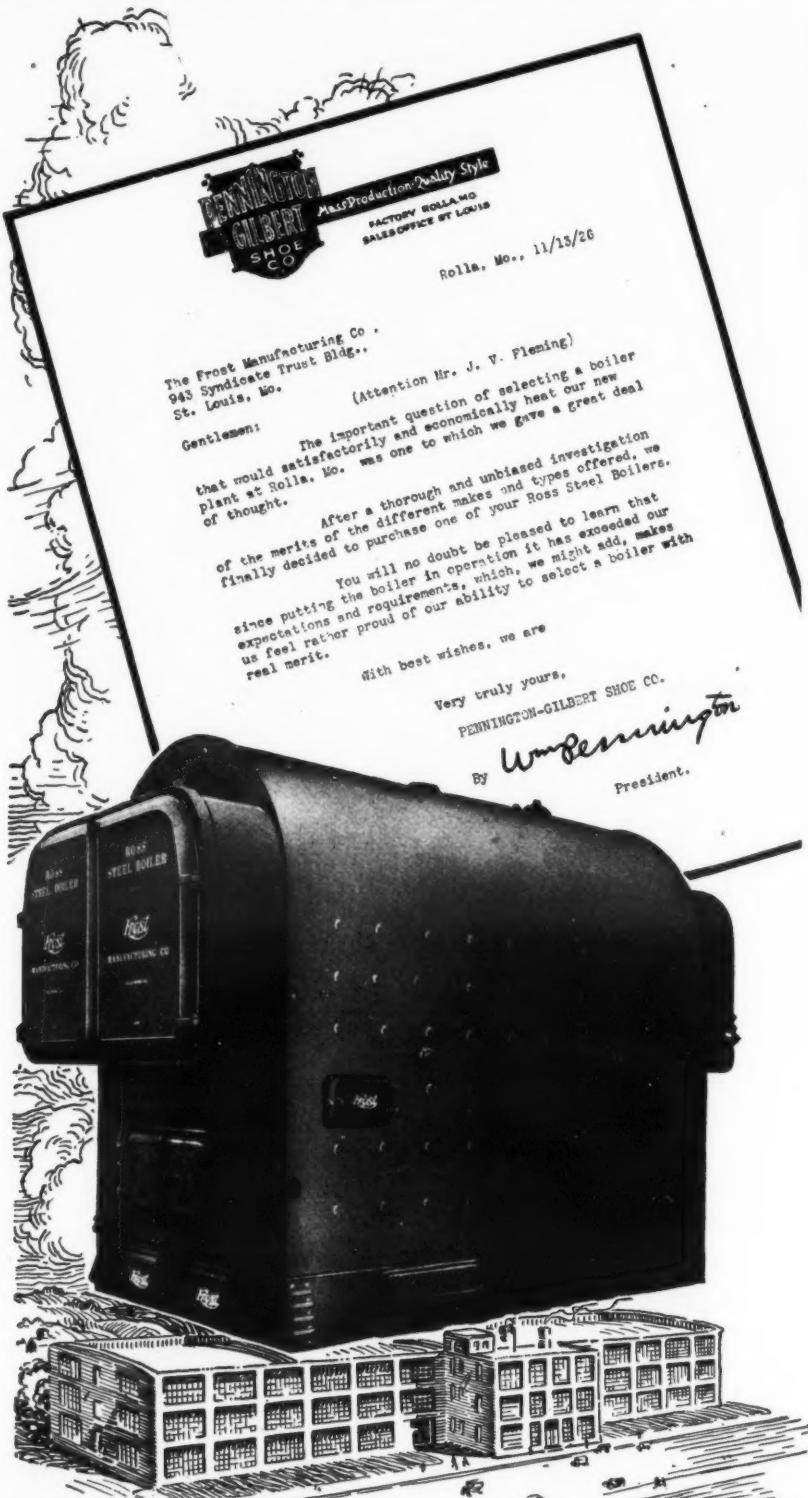
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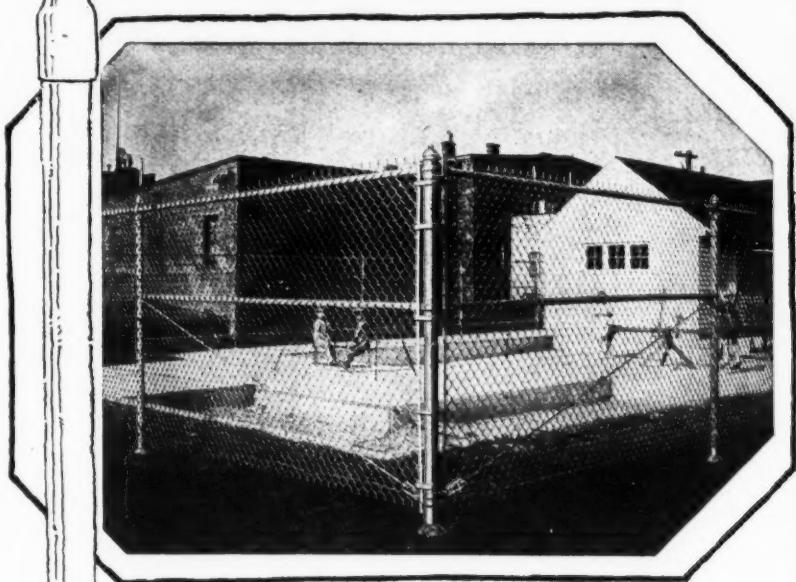
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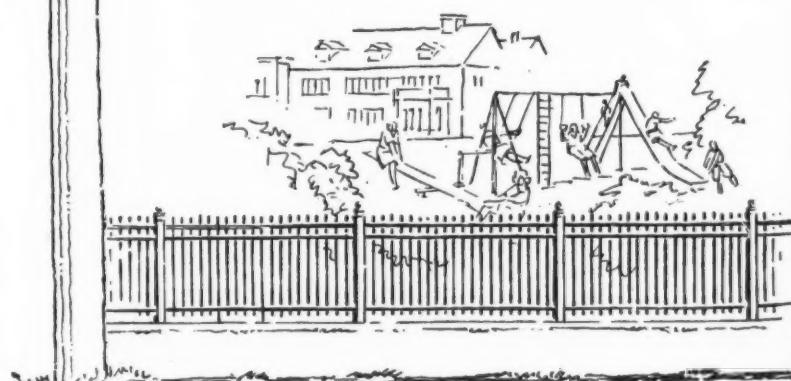
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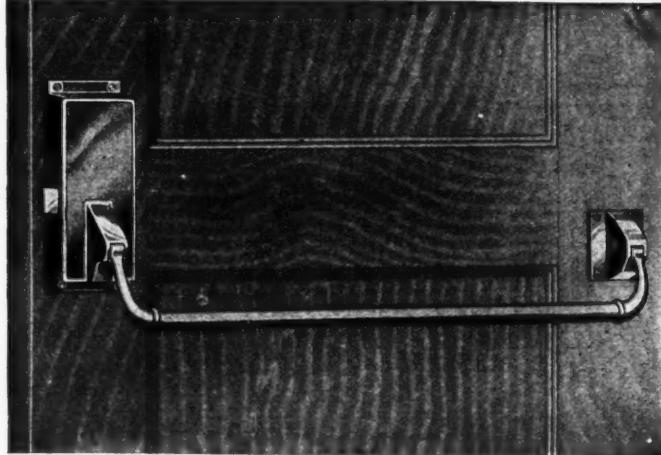
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Bolt projects 3/4 in. from lock case, enabling bolt to have sufficient contact with strike in the event of door shrinking.

Ideal for thin as well as heavy doors.

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Newark, New Jersey

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CATALOG

## THE SCHOOL BOARD AND THE SUPERINTENDENT

(Concluded from Page 47)

educational progress and conditions generally, both through a study of educational literature and through attendance at educational conferences and conventions. The community looks to him for its educational leadership, and it is a rare thing for a community ever to progress further in education than the vision set before it by the superintendent.

### The New Board Member

The Indiana school code provides for a school board of three members in cities and towns up to 30,000 population, with one member elected annually. Thus it frequently happens that there comes to the board a new member who has never held the responsibility for the direction of the schools. This new member often times is somewhat puzzled to know just what his attitude should be toward the previously formulated policies of the board, and unfortunately he sometimes takes the position that it is his duty to try to overthrow and overturn all that has ever been done by previous boards of education.

Without implying in the least that the new board member should exert little or no influence on the policies of the board, the suggestion is here put forth that the new board member should carefully study the policies of the previous board in the light of all the facts and figures that are obtainable before taking a definite attitude toward them. The preparation for the proper discharge of the duties of membership on the school board implies a very thorough study of all the factors affecting the school system. Board members who have already served one or two years naturally have a background of these facts which it takes time for the new member to acquire.

Besides a thorough study of his own local

school system, the suggestion is made that the school-board member will find it to his advantage to acquire a somewhat broader view of the whole problem of public education. Particularly helpful will be the journals devoted to the problems of school administration, such as THE AMERICAN SCHOOL BOARD JOURNAL, etc.

By basing his attitude toward the policies of previous boards on a thorough knowledge of his own school system, together with a broader view of school problems, the new board member can act in a way that will not prove embarrassing both to himself and to the schools which he serves.

### Classified Summary of Activities

For purposes of reference there is here presented a classified summary of activities of school boards and superintendents, with indication in parallel columns of the action which the board and the superintendent are each to take with regard to each activity.

### PRACTICAL SUGGESTIONS FOR SAVING TIME IN REQUISITIONING AND PURCHASING SUPPLIES

(Concluded from Page 49)

the record that reflects those same purchases by items. In other words, it would be thought necessary to *duplicate* the work. But Mr. Keller does not believe in a multiplicity of records, and, after studying the situation, he eventually decided to make his stock or purchase records serve two purposes; hence the reason for showing against each purchase, the name of the school for which the purchase was made. As soon as a new requisition comes in from that school, it is checked by items with the last purchase, and he can tell instantly from his card the date and quantity of that order. Needless to say, the school official responsible for passing on requisitions must have standards against which to check requisitions; he must know from experience whether the demand is

normal or otherwise; if he doesn't know this then records will be of no service to him, however elaborate.

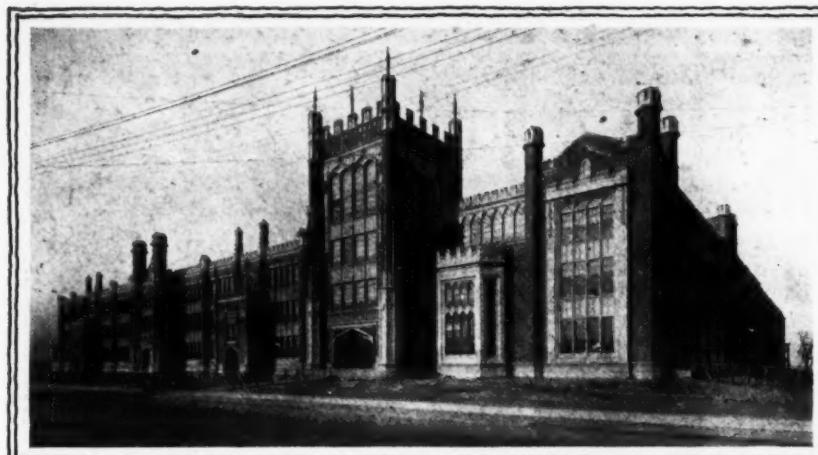
The two changes described above, and which have been made quite recently in the Newton schools' office, are mainly responsible for a condition which is almost unique in school administration: There is positively today, no back work to catch up; the office staff—small, but thoroughly efficient—is concerned only with current work. Saving a minute here, a minute there, some seconds in this operation, and making detailed work so simple that the temptation to avoid bothersome details ceased to exist, has revolutionized certain features in the administrative offices.

### AN EXPERIENCE IN MAINTENANCE

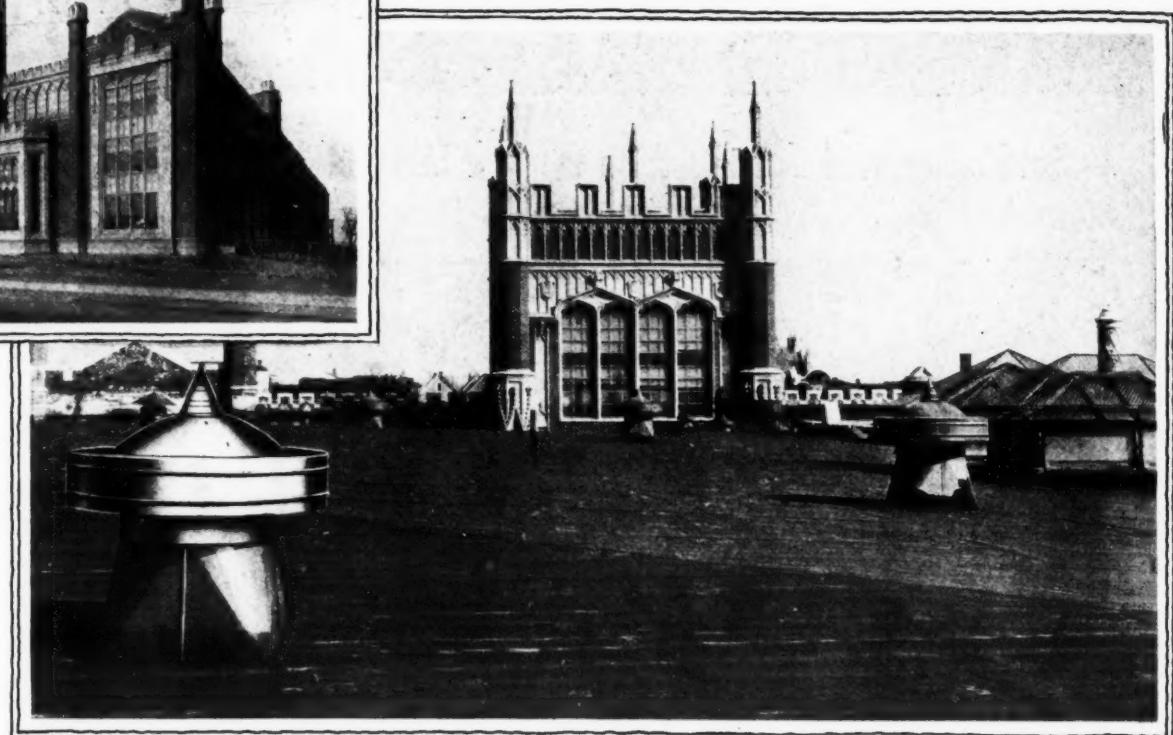
(Continued from Page 50)

a great load from the shoulders of the superintendent of schools because he diminishes greatly the need of frequent contact with mechanics for small jobs. He has a better view of the repair needs of the system, is able to center his attention on the most important, without neglecting those less pressing. He often calls attention to matters that would be overlooked by principals, teachers, and janitors.

While the larger jobs still have to be done by contractors, the utility man is able to give the point of view of the workman as to time elements involved and also cost of materials. The elements in the contract price are better understood by him, and the superintendent of schools may properly have more confidence in the fairness of the bid. He also has time and the knowledge as to how to find good and reasonable contractors, thus resulting in more favorable prices. This remark also applies to the finding of places to buy materials, proper discounts, etc.



JUNIOR HIGH-VOCATIONAL SCHOOL, BAYONNE, NEW JERSEY  
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## "GLOBE"

### *Ventilation For School Buildings*

SO efficient have "GLOBES" proved themselves to be that many architects look upon them as the standard ventilation for schools. Thousands of successful school installations prove this to be true.

The ventilators on the Junior High School are sturdily constructed of heavy weight copper, making them practically everlasting. They are absolutely storm-proof and trouble-proof.

There is no upkeep expense and there are no moving parts to get out of order or to require lubrication.

He further serves as a sort of "clerk of the works" on the larger contract jobs, thus insuring honest work. Few superintendents of schools can have the technical knowledge thus indicated.

There are, of course, some legal limitations on the work of the utility man in certain lines, more particularly in plumbing and electrical work. There may be some opposition in some places on the part of labor unions or local contractors. The latter will probably be reasonably satisfied, however, when they discover that there are always larger jobs than a single utility man can do, which will naturally gravitate to the honest and reasonable contractor.

Another problem that may arise is the tendency on the part of some janitors to call on the utility man for minor repairs that should be done by them. This can, however, be easily handled.

The natural evolution of such a position may be in either one of two directions. As the town and its building maintenance problems grow, it is likely that a large department such as those found in such cities as Kansas City, Dayton, and others, will develop. On the other hand, the position in a smaller city might grow into that of superintendent of buildings with the problem of handling a limited crew of workmen and, perhaps, the general supervision of janitors.

In summarizing, we may emphasize the following points learned by this experiment:

The general utility man: (1) Will result in savings on the maintenance account; (2) will provide one who can find time to observe and detect the maintenance needs of the system; (3) will provide one who has more expert knowledge in obtaining bids and prices of work and materials and who can see that work is well done

and materials are right; (4) will make available a man who can find solutions of difficult problems in maintenance which would probably not be suggested by a contractor whose contact with the system is at best but occasional and sporadic.

A considerable list of cases elaborating the above points might easily be cited, but would perhaps add nothing but length to this article.

### **EXCESSIVE SCHOOL-BUILDING COSTS** (Concluded from Page 52)

standards for the future building program, the architect of the board suggested that a considerable saving could be made by taking advantage of the economies to be derived from changes in the building code and by a more simple method of planning which was used with such success in the Wentworth Institute in Boston, and which may be termed the unit method. After a careful study some general types were recommended, and in the case of the elementary schools of thirty rooms the architect's estimates indicated a probable saving of about \$150,000, providing the same educational spaces as in the former plans, without any sacrifice of beauty or of quality of construction.

The board followed the architect's recommendations in general, making a few changes in detail, with the result that a thirty-room elementary school was built at a saving of \$145,000 over the previous type constructed under the old code.

These plans are now known as the standard plans of the board of education. If the earlier plans had been made standard the principle of standardization would have been preserved, but with a great financial loss to the taxpayers.

The fact that a building is a standard does not insure that it is economical. The danger is in continuing to construct buildings from plans

which are no longer in accord with the latest facts developed in school-building economies.

Standardization is more likely to mean stagnation and the duplication of mistakes. If it is attempted in a state-wide way it will mean that many districts will be compelled to accept plans not adapted to their needs.

Sound principles of planning should be broadcasted and examples of good plans, which might be typical for various-sized structures, made available for study and to be used only as guides. Of all the standard plans in existence, which have been studied and analyzed, none show such a degree of perfection that they could not be improved and built for less money.

Any attempt to prepare standard plans to be used throughout the state would not improve the situation, but would be the surest method to follow to halt the progress now being made in school buildings.

Third: The school authorities should continue research work on the problems of using each room the maximum number of hours possible, and the entire plant to the maximum capacity without sacrificing the child's welfare. The case of Mr. Swope, quoted above, shows the possibilities which exist in many of our schools for a scientific study of occupancy.

The result of these three lines of attack will reduce building costs without sacrificing the educational needs and without lowering the standard of building.

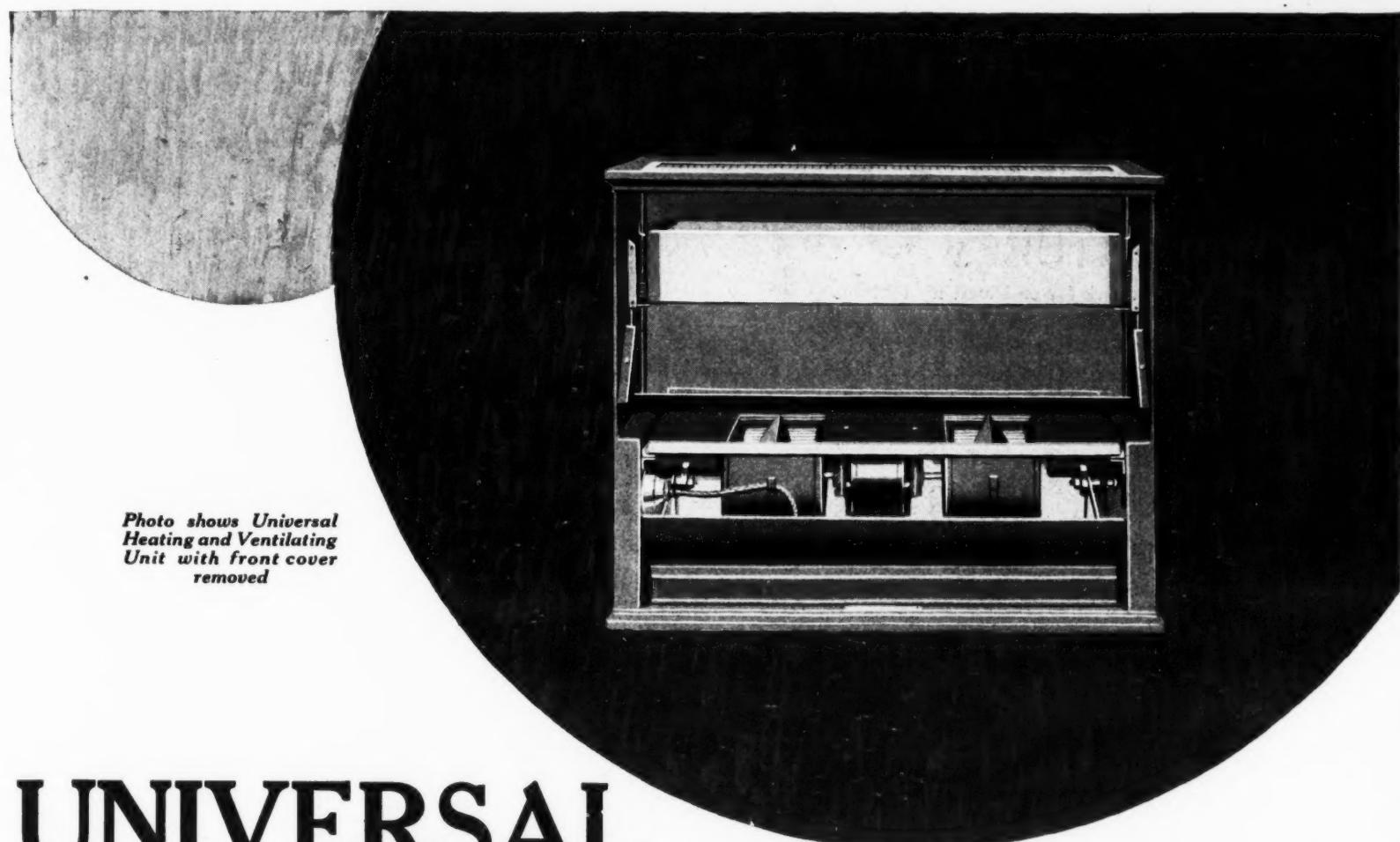
### **PRINCIPAL'S PART IN SUPERVISING CLASSROOM INSTRUCTION**

(Concluded from Page 54)

work has for its product the intangible output of public education.

Then the principal must secure a feeling of professional good-will among his teachers toward himself, toward one another, and toward

(Concluded on Page 148)



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*Simple in Design—Quiet in Operation  
Proved by 15 Years of Satisfactory Service*



Of vital importance to any product is its established reputation . . . In this day of claims and counter claims results alone are the only safe guide . . . Universal Heating and Ventilating Units have stood the test of time in 15 years of successful service in schools, pointing the way to satisfaction by quiet operation, reliability and economy.

*It will pay you to get all the details*

AMERICAN BLOWER COMPANY, DETROIT, MICHIGAN  
BRANCH OFFICES IN ALL PRINCIPAL CITIES  
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# For Economy

Economy in Plumbing Fixtures, like value, is determined primarily not by the first cost, but by their utility, economy in operation, and length of service.

**NOXCO** Plumbing Fixtures combine all these features and many more.

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**NOXCO** Plumbing Fixtures giving satisfactory service in schools throughout the country for over 45 years gives proof of their economy.

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**PIONEER MANUFACTURERS OF PLUMBING FIXTURES FOR SCHOOLS**

(Concluded from Page 146)

the profession and its work at large. Loyalty is so high a virtue in the whole of life, in every undertaking, that one cannot fail to see its importance. It is the highest factor in true patriotism.

**BURTON SCHOOL, GRAND RAPIDS, MICH.**  
(Concluded from Page 60)

second room for supplies. Ample provision is made on each floor for the storage of school supplies and for the janitors' use. At the grade between the gymnasium wing and the shop wing is a room for bicycles.

The boilers and pumps, electric generators, air compressors, and mechanical plant are housed in a separate unit in connection with undergrade coal storage vaults large enough to store 800 tons of coal. The boilers are of the high-pressure type and the mechanical plant includes generators which supply the building with electricity for illumination and for laboratory uses.

In this building all corridors and classrooms have floors surfaced with battleship linoleum. The desks and seats in the classrooms are not secured to the floor. The woodwork throughout is of oak, finished in silver gray.

One of the many innovations in the school-work of this office is the placing of fans for the supply of fresh air in the top of the building instead of in the basements as is usual. This has been done for several years past and the results have been entirely satisfactory. There are many advantages in doing this, the first being economy of construction, inasmuch as the need for deep excavations and foundations is obviated. The second is that galvanized-iron duct runs are shortened because the warmed fresh air is introduced above the center of the rooms. A third advantage is that such archi-

tectural features as towers may be legitimately used in the design of the buildings.

Lecture rooms, artrooms, shops, and laboratories are provided with sliding blackboards. All classrooms are provided with natural slate blackboards and cork bulletin boards. Where required, as in the artrooms, kindergarten, and first-grade rooms, ample display space is provided.

The building, with equipment, cost \$982,365.

### THE RELATION OF THE BUSINESS MANAGER TO HIS BOARD AND HIS CITY

(Concluded from Page 70)

some time subsequent, the building industry with us stood stock still. The people of Chicago found themselves face to face with a seating shortage of almost 90,000 which has since been reduced by 50,000 with a further probable reduction of 30,000 by the end of the present year.

The ever-increasing growth in population of our progressive city has made this shortage of school plant accommodations felt more keenly. Our average annual increase in school population is about 16,000 children and this increase requires the erection of not less than twelve elementary school buildings each year. It will thus be seen to what extent we are obliged to bend every effort in order that we may regain the ground lost during the six years of confusion preceding 1920 and in which period a large portion of our seating shortage developed.

#### Real "Big Business"

The business of business management of the Chicago board of education or of any of the larger cities has reached that stage where it has come to be regarded as "big business"—too big for any one man who has at heart the spirit of scientific management. Under the most advanced types of business organization we find each person assigned to specific duties for which

he is best qualified, and for the performance of which he is held responsible. It is the delegation of these specific duties first, by the board to its business executive, and then by the executive to persons who, through training and experience can best manage them, that constitutes worthwhile business administration. In this way boards of education relieve themselves of administrative details, thus saving for themselves the duty of reviewing the actions of executives to whom authority is delegated, and devoting their energies to the larger and more important educational and business policies.

#### RECENT TEXAS SCHOOL LEGISLATION

A constitutional amendment was submitted embracing two propositions: (1) A repeal of the provision in the constitution which designated the governor, comptroller and secretary of state to be ex-officio members of the state board of education; (2) providing for longer terms of office of school-board members not to exceed six years to be fixed by the legislature. This constitutional amendment is to be voted on in November, 1928.

The new high-school tuition act requires the trustees of school districts to pay the tuition of resident high-school students who cannot receive instruction in their home districts. The act provides that if by payment of said tuition the interests of the local elementary schools are affected detrimentally, application shall be made through the county board of school trustees to the state for reimbursement for the amount of tuition paid, which must not exceed five dollars per month.

The textbook law has been amended so as to place the appointment of the textbook commission entirely in the hands of the governor. The law also forbids the change of books unless "thorough investigation has been made which shows that a change is necessary for the best interests of the school children."

**Thurston Teachers' Agency Purchased.** The Thurston Teachers' Agency, 224 South Michigan Avenue, Chicago, has been purchased by F. Nelson Davis, president of the school board at Downers Grove, Illinois. F. W. Rawcliffe, for fifteen years principal and supervisor in the Cicero (Illinois) schools, will manage the agency.



"We don't use as many of these towels as the old ones."  
"I suppose not. One seems to do the work of two."

## How Schools Save Money!

### National Paper Products for your schools

#### "No-Waste" Toilet Tissue

The tissue that is soft, strong and absorbent. 800-sheet packages. 125 packages to fibre cartons. Nickel, green or white cabinets leased.

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Regular and Junior sizes. 150-towel packages; 25 packages to carton. Sheet metal cabinets in white or olive green.

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1000 counted sheets in a sanitary wrapped package for the home. Same quality as "No Waste" and made from clean spruce wood only.

THE National Paper Products Company originated the paper towels and today make more towels than any other company in the world.

Long study of quality and exceptional production facilities have resulted in doubly economical service for all public or semi-public washrooms.

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## PUBLIC SERVICE TOWELS



## A Successful Financial Campaign

Olney S. Weaver, Germantown, Ohio

School executives and members of school boards are both concerned in the problem of conducting a successful financial campaign. By the very nature of the problem as well as the importance of the results, those responsible for any educational system have come to recognize the significance of securing sufficient financial backing for the efficient operation of the schools. Frequently board members and school administrators, in their eagerness to obtain this adequate and necessary support, neglect thoroughly to plan their campaign in advance, and much effort is wasted in securing unsuccessful and unsatisfactory results: the schools of a community are closed and the children forced to lose a part of their heritage of education.

In the belief that successful methods of procedure can be used and applied in various situations, an outline is presented of the plan used in Germantown, Ohio, where a campaign for the reapproval of a three-mill levy was successfully carried to completion, with the desire that these suggestions may materially assist some school district to successfully put on a financial campaign.

An explanation of the situation and conditions under which this plan operated will perhaps make more apparent the need and advantages of those methods selected. Germantown is a town of about two thousand inhabitants. The school district is an exempted village district and is independent, although it heartily cooperates with the county superintendent and the county system of schools. The school contains both grade and high school, with 350 pupils in the former department and about 150 in the latter. There are eighteen teachers, some from the local community and others from more distant cities. The people of the town had cooperated most willingly with the school in its program in most situations, although on a matter when money and taxes were an issue, the result was not so sure. Five years before, the voters of the district had authorized an extra levy of three mills to be raised in order to provide adequate funds for the operation of the school, which measure was to be in effect for five years. In the November election, which followed rather closely upon a heavy bond issue for a new school building, the levy had to be reapproved if the school was to continue in its present efficient condition.

Soon after the opening of school the superintendent of schools began to make plans for the campaign. In regular teachers' meetings he discussed the issues with the teachers and gave them all the necessary information in order that they would be prepared to intelligently discuss the need for the three-mill levy, the use to which the money was put, and its meaning to individual pupils, with any member of the community who might interview them. Thus a nucleus of well-informed teachers, recognizing the importance of the campaign, was ready to educate public opinion.

Another method for distributing the proper information was the weekly newspaper. A short article stating in clear, concise language the reasons why the people of the community should support the levy was published. In another issue there was a more extended explanation of the benefits derived from the three-mill levy. A brief resume of the financial status of the school furnished material for other articles. This publicity appeared each week for the eight weeks preceding the election.

The parent-teacher association was most willing to cooperate with the superintendent and sponsored a contest for the best slogan for the "three-mill-levy campaign," open to any citizen of Germantown. Boxes were placed in prominent windows in the business section of town, where contestants could deposit their entries. The English classes as well as the children of the upper grades all competed in the contest. To decide the winners a committee of representative townspeople was arranged, which selected the three best slogans, and awarded the cash prizes donated by the parent-teacher association. The winning contributions were used for publicity material. Some of the better slogans were:

"Our Boys and Girls First."  
"The Best Is None Too Good."  
"Not a new tax or one that is heavy  
So don't close your schools  
But vote for the Three-Mill Levy."  
"Fathers and mothers  
All take heed,  
The Three-Mill Levy's  
What we need."  
"Eventually—Why not now?  
Vote for the Three-Mill Levy."

Another rather effectual and convenient method for circulating the right kind of information to the voters of the community, and especially to those most vitally interested in the welfare of the school children, the parents, was utilized when the monthly report cards were distributed. In each pupil's report was attached a statement of five reasons why the parent should support the three-mill levy. Thus into practically three-fourths of the homes of the community the evening before election, a fresh reminder of the issues at stake in the ensuing election furnished a stimulus to each parent to vote for a proposition which represented the best interests of his child.

In order to reach those homes which were not included in those receiving report cards, a handbill was prepared. It was printed on inexpensive paper in red and black ink, the important points being made more outstanding by being printed in the brighter color. The afternoon of the day before election one of the men on the faculty took a group of high-school boys and supervised the distribution of these handbills into each home in the town and in the outlying districts. This was accomplished rather easily, the work having been thoroughly organized previously.

**Vote "Yes" for the Three-Mill Levy for the Schools BECAUSE— IF IT FAILS—**

1. It will keep the present school year of nine months.
2. It will replace the present three-mill levy which is about to expire.
3. It will NOT increase the present tax rate.
4. It will be giving your children a SQUARE DEAL.
1. It will shorten the school term.
2. It will lower the standing of the school.
3. Pupils receive less individual attention.
4. It will curtail the work of the various departments of the school.



### OUT OF REACH

When the San Francisco board of education found it necessary to ask for an entirely enlarged budget, the San Francisco newspapers rendered valuable service in publishing articles, cartoons, etc., calling the attention of the public to the situation. The two cartoons on this page are taken from the San Francisco Chronicle.

5. Other taxes may be distributed over the county or state—but the money raised by the three-mill levy is used entirely for our local school.
5. Only two-thirds of the present school funds will be available for use next year.

### Vote "Yes" for the Three-Mill Levy for the Schools (reverse side)

### Vote "Yes" for the Three-Mill Levy for the Schools Slogans awarded prizes by the PARENT-TEACHERS' ASSOCIATION

"Our Boys and Girls 'Not a new tax nor one that is heavy,  
So don't close your schools,  
But vote for the three-mill levy.'  
Eventually—Why not now?  
Vote for the Three-Mill Levy."

"The Best is None Too Good."  
"Cooperate with the School For the Best Development Of Your Child."  
"Fathers and Mothers All take heed—  
The Three-Mill Levy's What we need."

### Vote "Yes" for the Three-Mill Levy for the Schools

Recognizing the important effect which children have in influencing positively the opinions of their elders, the latter part of a hallowe'en program, prepared by the grade children, was given over to a short skit of perhaps fifteen minutes in length, which presented in song, in picture, and in speech, the definite issues of the campaign.

It was a somewhat anxious group which gathered to hear the election returns. When the last precinct had reported, it was found that the levy had carried by almost three to one. This was an unusual record since in the same county in eight other school districts the levy was defeated, and in only one other district than Germantown was a similar measure successful.

An analysis of the plan used in Germantown will suggest certain principles which will contribute to the success of any financial campaign.

1. Plan your work far enough in advance and be ready to meet all arguments.

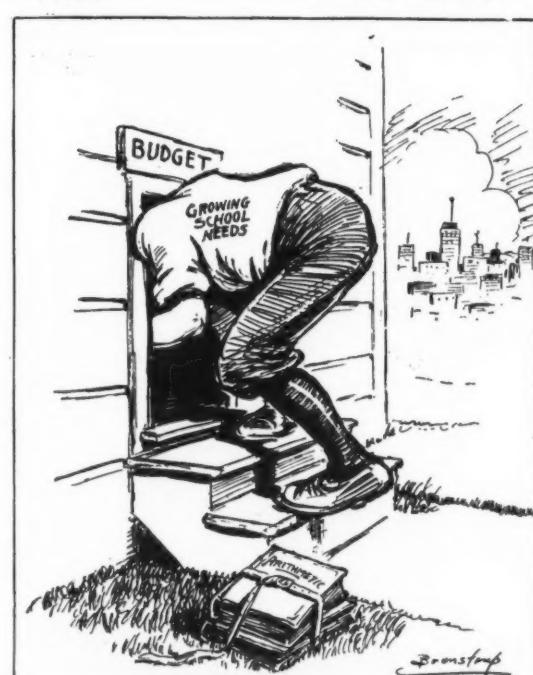
2. Begin early to prepare the minds of the people in the community. Persistent, continued effort is most effectual.

3. Allow the children to present the facts, since they are more influential in determining the opinions of their parents.

4. Use care in selecting a speaker who will be recognized as an authority by the citizens.

5. Plan the campaign toward a climax. The "psychological moment" is not to be ignored.

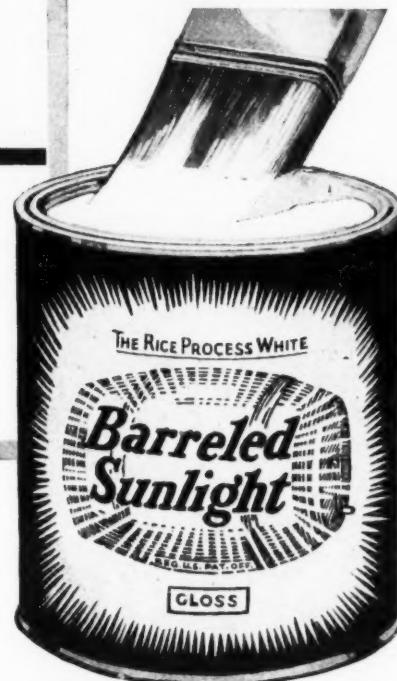
If financial campaigns are to be successful they must be based on sound business and psychological principles in order that the greatest benefits result to the children of the community.



TIGHT!—SAN FRANCISCO'S GROWING SCHOOL BUDGET.  
—San Francisco Chronicle.



*Corridor of the Eliza Butler Kirkbride School of Philadelphia — painted with Barreled Sunlight. Smudges on this smooth, lustrous surface can be wiped off with a damp cloth. Repainting won't be necessary for years!*



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*to give interiors lasting cleanliness!*

**CHEERFUL LIGHT** — spotless cleanliness — freedom from frequent repainting — these are strict requirements in some of Philadelphia's finest schools. Requirements which have been fully met by painting walls and woodwork with *Barreled Sunlight*.

Hundreds of other schools have solved the same problem in the same way.

Whether in the pure white or tinted — whether used to replace paint or enamel — *Barreled Sunlight* offers every advantage.

**F**OR lavatories and kitchens, and for woodwork throughout, *Barreled Sunlight* Gloss gives a lustrous, flawless surface that washes like tile and is so durable that washing does not wear it away. Handsome as enamel but costs less and requires fewer coats.

For rooms where a flat finish is sometimes preferred, nothing is more suitable than *Barreled Sunlight* Flat. Extremely handsome and uniform.

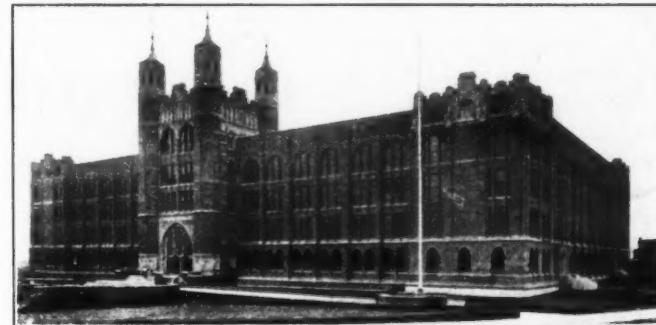
*Barreled Sunlight* Semi-Gloss strikes a nice balance between the other two finishes. It is widely used for stairways and similar places.

*Barreled Sunlight* is guaranteed to remain white longer than any gloss paint or enamel.

In quantities of five gallons or over we tint *Barreled Sunlight* to order at the factory, without extra charge. For tinting small quantities our dealers carry handy tubes of *Barreled Sunlight* Tinting Colors.

Sold in cans from  $\frac{1}{2}$  pint to 5 gallons, and in 30- and 55-gallon steel drums. Where more than one coat is required, use *Barreled Sunlight* Undercoat first. See coupon below.

U. S. Gutta Percha Paint Co., Factory and Main Offices, 44 Dudley Street, Providence, R. I. New York—420 Lexington Avenue; Chicago—659 Washington Blvd.; San Francisco—156 Eddy Street. Distributors in all principal cities.



*Two more examples of the many fine Philadelphia schools that are kept bright, clean and cheerful by painting walls and woodwork with Barreled Sunlight*  
*Above, the Overbrook High School. Below, the Theodore Roosevelt Junior High School*



U. S. GUTTA PERCHA PAINT CO. 44 Dudley Street Providence, R. I.		
Please send me descriptive literature and a sample panel painted with <i>Barreled Sunlight</i> . I am interested in the finish checked here—		
<input type="checkbox"/> Gloss	<input type="checkbox"/> Semi-Gloss	<input type="checkbox"/> Flat
Name.....		
Street.....		
City..... State.....		

# Barreled Sunlight

Reg. U. S.

Pat. Off.



## Stop Signing Repair Bills! Sign the Coupon below

HUNDREDS of scuffing, scampering feet are "death" on school building floors—both wood and concrete. They splinter and wear out the wood. They grind the concrete into dust that is dangerous to health. They raise your maintenance costs by necessitating repairs. Stop this waste by making your floors wearproof and dust-proof.

### LIGNOPHOL

THIS great wood floor preservative penetrates the wood fibres and restores the natural gums and oils. It gives you a wood floor that is hard, smooth and sanitary. Prevents rotting, splintering and

drying out. Does away with the use of messy floor oils. One treatment will last for years.

### APIDOLITH

THIS liquid chemical changes a concrete floor surface to a fine, dense, crystalline structure of flint-like hardness. No more wearing down of floors. No more concrete dust. Lapidolith adds years of life to even an old worn floor. As easy to apply as water. The floors can be used a few hours after application.

*Other Sonneborn Products*  
SONOTINT—The Velvety Washable Flat Finish.  
CEMCOAT—Washable Enamel Paint.  
HYDROCIDE COLORLESS Rainproofs Buildings.

Mail Coupon for Free Samples

**L. SONNEBORN SONS, Inc.**  
114 Fifth Avenue  
New York

COUPON

L. SONNEBORN SONS, Inc.  
114 Fifth Avenue, New York

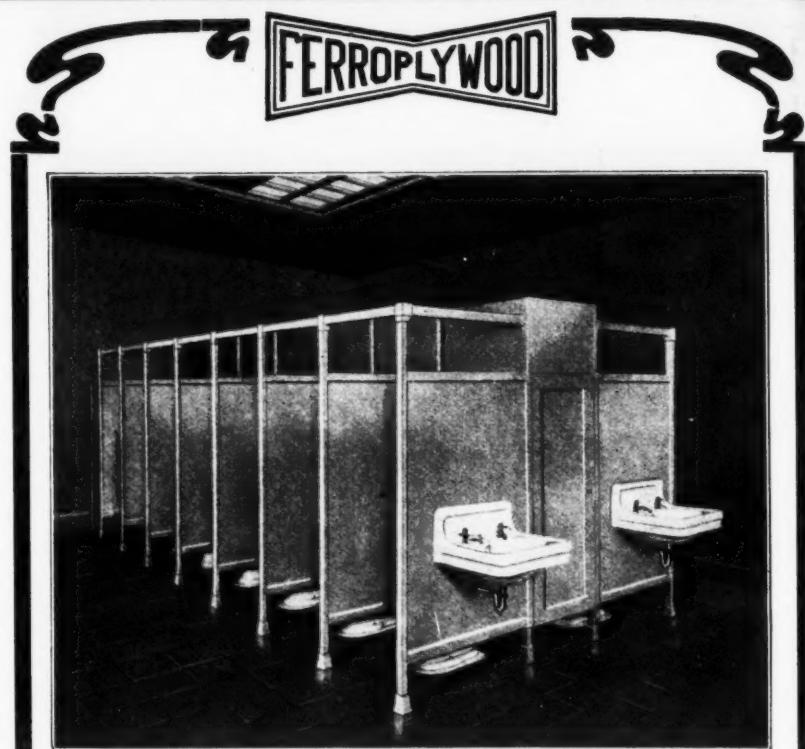
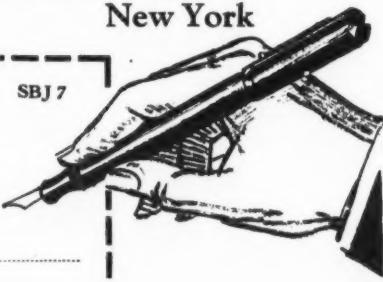
Please send me, without obligation, demonstration samples and literature on:—Lapidolith; Lignophol; Sonotint; Cemcoat; Hydrocide Colorless. (Check products that interest you.)

Name \_\_\_\_\_

Address \_\_\_\_\_

Company \_\_\_\_\_

Position \_\_\_\_\_



TYPICAL FERROPLYWOOD INSTALLATION, Chicago Public Schools

## The Metal Partition that is Different

### SANITARY

No open seams or butt joints.  
No dirt catching mouldings or channels.

### STRENGTH

Partition and door panels  
 $\frac{1}{4}$  inch thick material.  
Rigid interlocking panel and door construction.  
All joints welded and homogeneous.

### SOUND PROOF

No metallic sound or buckled panels.  
(Note detail of FERROPLYWOOD panels.)  
Kalamein sound proof door stiles with  $\frac{1}{4}$  inch thick panel.

### HARDWARE

Heavy universal adjustable hinges securely bolted through post. Heavy nickel plated Brass Door Bolt and Pull.

### FINISH

The easy to clean rust resisting, and flexible finish required for large panel surfaces reduces maintenance cost to a minimum.

### ERECTION

No special labor required, no drilling or cutting in the field. Complete erection drawings with every installation.



DETAIL OF FERROPLYWOOD PANEL

### COMPLETE LAYOUT AND PLANNING SERVICE

Send rough layout or blue prints of your plumbing requirements.

WRITE FOR CATALOGUE No. 10.

**Litterer Bros. Manufacturing Co.**  
CHICAGO 3022-3032 North Rockwell Street ILLINOIS

Representatives in All Principal Cities

# ✓ Check the actual advantages of BEACON FOLDING CHAIRS



✓	<b>COMFORT</b> due to the large, properly tilted back and the roomy seat. Students seated in Beacon Chairs are less fidgety.
✓	<b>DURABILITY</b> due to the tubular steel frame which is free from bolts or screws. Cross supports are electrically welded; moving parts are riveted.
✓	<b>ECONOMY</b> because the <i>five year written guarantee</i> protects you against replacements.
✓	<b>SILENCE</b> due to the rigid construction and rubber leg-tips, which also protect the floors. No clatter or creaking to disturb teacher or students.
✓	<b>SAFETY</b> because a Beacon Chair cannot fold accidentally or collapse.
✓	<b>COMPACTNESS</b> because it folds flat to a thickness of only $1\frac{1}{8}$ inches.

These tangible points of merit are responsible for the adoption of Beacon Folding Chairs in schools where equipment is chosen on the basis of efficiency and economy.

Use the convenient request-for-sample coupon so that you may subject a Beacon Chair to your own inspection and tests.

**BEACON STEEL FURNITURE COMPANY**  
1841-1845 Carroll Avenue      :-:      Chicago

When in Chicago, see our Exhibit in our sales room, 1410 South Wabash Avenue.



BEACON STEEL FURNITURE CO.,  
1841-1845 Carroll Ave., Chicago

Please send a Beacon Chair on 10-day approval, subject to return for full credit if it does not prove entirely satisfactory.

COLOR	STYLE
<input type="checkbox"/> Brown	<input type="checkbox"/> Wood Seat and Wood Back
<input type="checkbox"/> Mahogany	<input type="checkbox"/> Upholstered Seat and Wood Back
<input type="checkbox"/> Battleship Gray	<input type="checkbox"/> Upholstered Seat and Upholstered Back
<input type="checkbox"/> Olive Green	

Name .....

Address .....

City and State.....

## PRINCIPLES GOVERNING THE MANAGEMENT AND ACCOUNTING FOR THE SCHOOL PLANT (Continued from Page 48)

records and the ease with which an inventory can be made.

The classification of equipment must be differentiated from supplies. Articles of equipment are usually distinguished from supplies because of the time-service element. Supplies are consumed in current use. Their service life is relatively short. When cost of the goods is small and where the element may or may not be consumed in use it is more convenient and economical to group such elements under supplies. Frequently it becomes necessary to arbitrarily classify an element as a supply or equipment. When this is done uniformity of acceptance and consistency in practice is essential to good property management and accounting control.

To aid in the classification of property, the use of symbols, code, or abbreviations have been found to be of great advantage. Various systems of symbols have been used.<sup>14</sup> In a small school system the use of a code is not so essential, but in the larger systems a carefully planned classification of symbols is a great help. The following list represents a suggestion for a general classification of the property elements of a school plant.

- A. *Lands.*
  1. Lands held for future sites.
  2. Other lands.
  3. Sites in use.
  4. Playgrounds (not included in 3).
- B. *Buildings.*
  1. Buildings used for administrative purposes.
  2. School buildings.
  3. Other buildings.
- C. *Permanent Equipment and Property.*
  1. Electric wiring and fixtures.
  2. Fire-protection equipment.
  3. Fences and walks.

<sup>14</sup>Accountants' Handbook—Ronald Press, Page 422.



ILLUSTRATION 6. FUNDAMENTAL TO EFFICIENT PLANT SERVICE IS ADEQUATE STOREROOM MANAGEMENT.

When cash is converted into goods the money value of the goods is frequently lost sight of. Furniture can be economically salvaged, rebuilt, repriced, and made available for use. It is an important problem of property management.



## It's Not Too Late— YET!

There is still time to install a Logan Spiral Slide Fireescape before school convenes. Still time to avoid possible calamity!

Write today for full details on the safest, surest fire-escape ever perfected for exit from upper floors!

*Let our engineer consult with you—no obligations.*

**Logan &**

(Formerly The Dow Co.)

300 N. Buchanan St.  
LOUISVILLE, KY.



- 4. Heating and ventilation equipment.
- 5. Sanitary equipment and fixtures.
- D. *Movable Equipment in Use.*
  1. Automobile equipment.
  2. Office furniture and equipment.
  3. Instructional furniture and equipment.
  4. Other movable equipment.
- E. *Movable Equipment in Storage.*
  1. Automobile equipment.
  2. Office furniture and equipment.
  3. Instructional furniture and equipment.
  4. Other movable equipment.
- F. *Books.*
  1. Library books.
  2. Textbooks in use.
  3. Supplementary textbooks.
  4. Textbooks in storage.
  5. Supplementary textbooks in storage.

This classification can be expanded in the detail necessary to the economic and efficient management of the system. The subdivisions should include each article used classified by schools, by

departments of instruction, and by types of services.

(To be continued.)

### WOMAN'S SERVICE ON THE BOARD OF EDUCATION

(Concluded from Page 44)

tion which a hundred years ago would not have been believed possible. They have proved to be efficient members of boards of education all over the country, and through their service have gained the confidence of the public. It is no longer a question of the value of woman's membership on the board of education, but rather a question of the most effective use of her peculiar possibilities and powers.

The welfare of the child, excites her instinct of motherhood and calls forth her strongest appeal. In addition to this her qualities of sympathy and patience, her freedom from tradition are assets that are and should be recognized as valuable for a member of a board of education.

### AN EXAMINATION EXEMPTION SYSTEM

(Concluded from Page 48)

pupil may work; that it gives the pupil a chance to weigh and consider his past record and pass judgment upon himself; that it serves as a stimulant toward better conduct and a stricter observance of the school regulations; that it provides a well-worth-while reward, which is within the reach of each individual pupil; and that it gives the pupil a different viewpoint in his attitude toward his teacher.

As indicated above, the efficiency of the system has not been determined objectively, but by weighing the reaction of the pupils to the system with other values, the administrators of the El Dorado system are willing to continue it until a more practical and more beneficial device is secured.

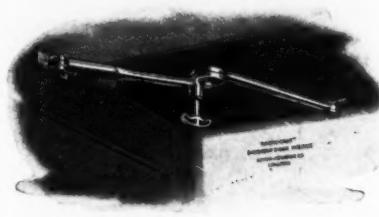
## Bronze Door Holders for Schools

Standard Equipment in Over 100 Cities

### Aristocrat Overhead Door Holder

For installation on Entrance Doors opening out.

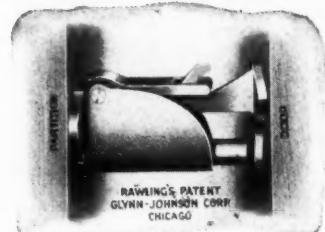
"Up over the heads of the crowd."



### Rawling's Automatic Door Holder and Bumper

For installation on classroom or corridor doors opening back to partitions or walls.

Can be installed on baseboard, chair rail or at top of door.



### Hercules

Fulerum or Leverage principle. Simple—Noiseless in operation. Splendid equipment on doors of every description. Especially Doors operating with door closers, or checks.



*Write for descriptive literature*

**Glynn-Johnson Corporation  
La Porte, Indiana**

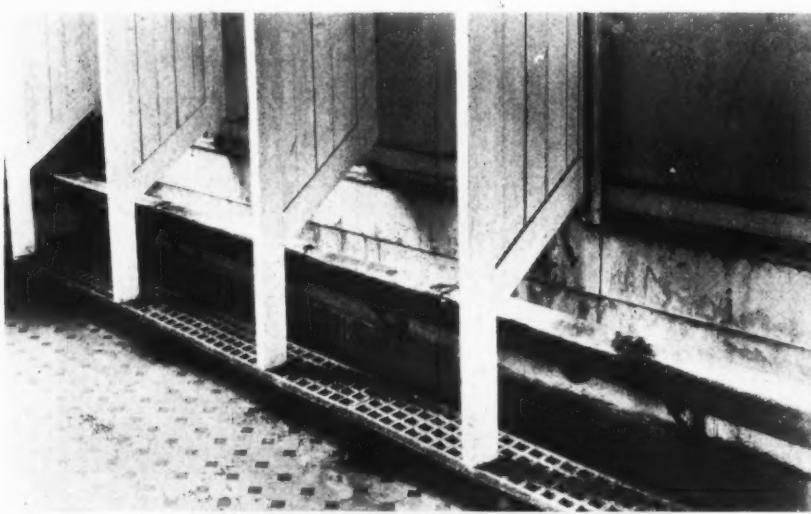


ILLUSTRATION 5. STANDARDS IN SANITARY EQUIPMENT RELATE CLOSELY TO MORALS AND HEALTH.

Note the improvement in the sanitary facilities provided for our children today as contrasted with twenty-five years ago. Note likewise the results of depreciation and probable faulty standards of operation and maintenance. These factors constitute vital problems for school-plant management.

## To choose *Haas Equipment* for your school is to think in terms of the future!

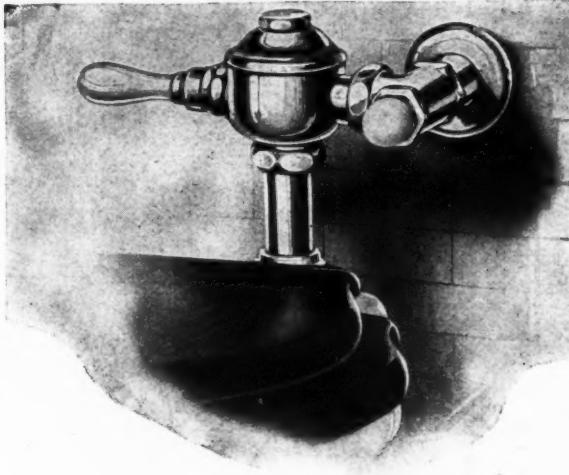
SCHOOL board officials who plan to re-equip their buildings during these vacation months with Haas Flush Valves throughout — and Haas Water Closets where required — are thinking in terms of future saving!

Architects who specify Haas equipment for their new schools also have an eye to economy in years to come.

For Haas Flush Valves — installed in some schools nearly thirty years ago — are working perfectly today, with negligible upkeep costs and lowest water bills.

Built for public use and the abuse to which school children often subject them, Haas Valves have set a standard for all that equipment of this sort should be.

There is undoubtedly a Haas installation near you — let us tell you where!



WATER  
CLOSETS  
*Haas*  
FLUSH  
VALVES

Haas Flush Valves have no metal-to-metal contacts that cause rapid wear — no complicated mechanisms, needle-point adjustments nor small ports that clog. Positive control of flow and after-fill; are internally self-cleansing in all waters, alkaline or sedimental.

HAAS EQUIPPED SCHOOLS



CHERRY AVE. SCHOOL  
CANTON, OHIO.



GREENFIELD HIGH SCHOOL  
PITTSBURGH, PA.

*Catalogue sent upon request to school board officials and architects*

**PHILIP HAAS COMPANY**  
DAYTON, OHIO

*Established 1896*

# Athey Perennial Window Shades

## Let in the Light — Shut out the Glare

Light is essential, but windows must be so shaded that the glare from the direct rays of the sun is excluded.

Athey Perennial Window Shades can be raised from the bottom, or lowered from the top. It's a matter of only a few seconds to adjust them to shut out the sun's rays. The cloth of which they are made diffuses a soft light—another important feature.

### Won't Rattle or Flutter

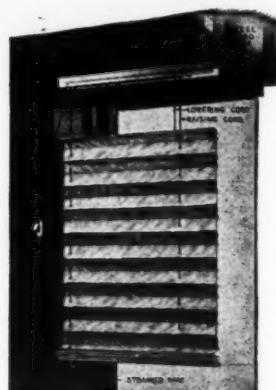
Rattling and fluttering shades are very distracting to pupils and teachers. Athey shades run on strained wires. They resist wind pressure, and even when the windows are open, on a windy day they will not rattle and flutter.

### Longer Life Means Lower Cost

Athey Perennial Window Shades are made of a special weave cloth, which is practically indestructible.

And there are no latches, catches, or springs to slip, stick or break. The only parts of the shade ever touched are the operating cords.

Many of the first Athey shades made —more than 10 years ago—are still in good condition. And thousands of installations have proved that, long-life considered, they are the most inexpensive shades obtainable.



Ask us for a copy of our Pamphlet "Conservation of Eyesight." It will interest any one interested in schools.

**Athey Company**

6073 West 65th St.

Chicago, Illinois

New York City: F. H. KEESE, 7 East 42nd St.  
In Canada: CRESSWELL-McINTOSH, Reg'd — 270 Seigneurs St., Montreal, Que.

### BALANCING THE BUDGET

(Concluded from Page 46)

that we should carefully consider all expenditures and not leave them to an outsider, as is often the case with our superintendents. The transient superintendent is not particularly concerned as to how we get the money to pay the school bills. A certain item is needed, from his point of view, and he does not stop to consider the cost.

As a school official of almost twenty years' experience, I have seen the changes along the line of expansion and have tried to keep in touch with them. I have also served my township almost half as many years as a tax assessor. The latter fact has made me give the school budget the most careful consideration. When we have to build new buildings, we may have to shift part of the expense upon our grandchildren. Bond issues are necessary in such cases, but I would include every item except those for permanent improvements in the current budget, and I would see to it that the budget is shaved to the minimum without sacrificing efficiency.

A great many school boards and school officials serve without salary. Others get very meager compensation. During my years of service, I have probably drawn enough to pay me for something like one quarter of the time I have actually devoted to school affairs. We do not expect a teacher or superintendent to give any part of his or her time. They must have a fair salary. I do expect both to be careful of school property and school supplies, however, and this should be one of the qualifications to receive the most earnest consideration.

We have to face the question of competition for the services of the best teachers and superintendents. Suppose our budget has been made upon the basis of present salaries and we find that a neighboring district or union is offering

more. I have felt in some cases that an efficient teacher or superintendent is worth as much to us as to our neighbor and have met the advance. Here, however, we have to decide how far to go, for human nature is far too prone to take undue advantage of competition. Sometimes we have to let an otherwise desirable teacher go because of this tendency. The teacher or superintendent who comes to our board and tells us frankly the situation is quite likely to be retained, other circumstances being equal.

The burden of schools, which ought not to be a burden at all, is not always equally divided. The poorer communities need the best schools. Happily some of our states have come to the proper realization of this fact and have made uniform laws. The education of boys and girls is a question which affects more than the township or school district. It is a matter of concern to the state; some go farther and say to the nation. We may well leave it in the hands of the states, provided the states will make laws of some degree of uniformity. The proper education of a boy in an obscure township, located up in the Adirondacks, is just as important to the State of New York, as the right teaching of a boy in Buffalo. Buffalo has the means of providing better schools, better equipment, and better teachers, however, so we must take some of the revenue the city is able to provide and use it for the education of the boy living up there in the trapper's hut.

Many of the states are helping us to balance our budgets, therefore, but there still remains the necessity for school boards and officials to carefully scrutinize every item of expenditure. We must not, on the one hand, allow the prejudices and fault-findings of the disgruntled and unprogressive to influence our recommendations, to the detriment of the schools; and, on the

## Make YOUR Teaching More Effective

by using the SPENCER EDUCATIONAL FILMSLIDES as a part of your daily lessons.



The pictures on the film strip shown are but a brief suggestion of those in our library of over 20,000 such illustrations, maps, etc., made up into strips of filmslides of approximately fifty pictures each, covering all grammar school and some high school work. Each film has been worked up carefully and all material compiled having in mind its relation to the daily work of the regular curriculum. Manuals have been prepared for each film, giving authentic information on the subject under discussion.

With filmslides, there is no danger of breakage from rough handling, practically no cost of transportation, and there is no possibility of the pictures becoming disarranged or mislaid. They are always at hand, ready for use without a second being wasted. Your class will show marked improvement, for it is a well-known fact that pictures make a more lasting impression than many words.

Assistance in adapting this form of visualization to your individual requirements will be gladly given by

**SPENCER LENS COMPANY**  
BUFFALO, N. Y.

New York Chicago San Francisco Boston

WRITE FOR FURTHER DATA.

other, we must bear in mind the inherent rights of the taxpayer and not impose an undue burden. Balancing the budget is not an act that can be lightly dismissed.

### LEGAL STATUS OF HIGH-SCHOOL FRATERNITIES

(Concluded from Page 53)

participate in certain school activities are valid."

In the case of a statute authorizing school boards to expel pupils belonging to fraternal societies, the District Court of Appeals of California,<sup>17</sup> the Supreme Court of Iowa,<sup>18</sup> and the Supreme Court of Illinois<sup>19</sup> have ruled that such statutes are constitutional. We have already mentioned the fact that such statutes have been upheld in the Supreme Court of the United States.<sup>20</sup>

<sup>17</sup>Bradford v. Board of Education, 18 Cal. App. 19.  
<sup>18</sup>Lee v. Hoffman, 182 Iowa 1216; 166 N.W. 565; L.R.A. 1918C 933.

<sup>19</sup>Sutton v. Bd. of Education, 306 Ill. 507; 138 N.E. 131.

<sup>20</sup>Waugh v. Mississippi University, 237 U.S. 580.

—Supt. John L. Foust of Owensboro, Kentucky, has been elected president of the Kentucky Educational Association for the ensuing year. Mr. Foust has been in schoolwork in Owensboro for the last 25 years. He came to Owensboro as an instructor in 1902, and has been superintendent of schools since July, 1921, when he succeeded Mr. Risley.

—Mr. Z. M. Walter of Grandview Heights, Ohio, has been elected superintendent of schools at Hillsboro.

—Mr. G. L. Putnam of Colville, Wash., has been elected superintendent of schools at Ellensburg.

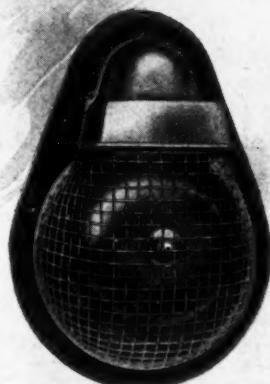
—Mr. Howard Ely has been elected superintendent of schools at Bridgeport, W. Va., to succeed S. A. Gillette.

—Mr. G. B. Ferrell of Dysart, Iowa, has been elected superintendent of schools at Oelwein.

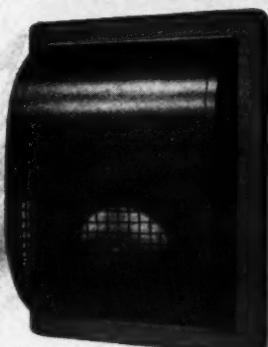
—Mr. J. M. Herman of Bellevue, Minn., has been elected superintendent of schools at Lanesboro, to succeed L. M. Morrill.

—Supt. E. C. Meredith of Motley, Minn., has been reelected for another year.

# Holtzer-Cabot Signaling Systems Apparatus



School Yard Gong

Yard Bell with  
Hood and Cage Type "D"

Type "S" Bell

## PROGRAM BELLS

Every modern school should be provided with some means of denoting the different periods of the day's schedule.

All over the country there are thousands of schools in which Holtzer-Cabot apparatus is installed.

Full particulars will be sent upon request.

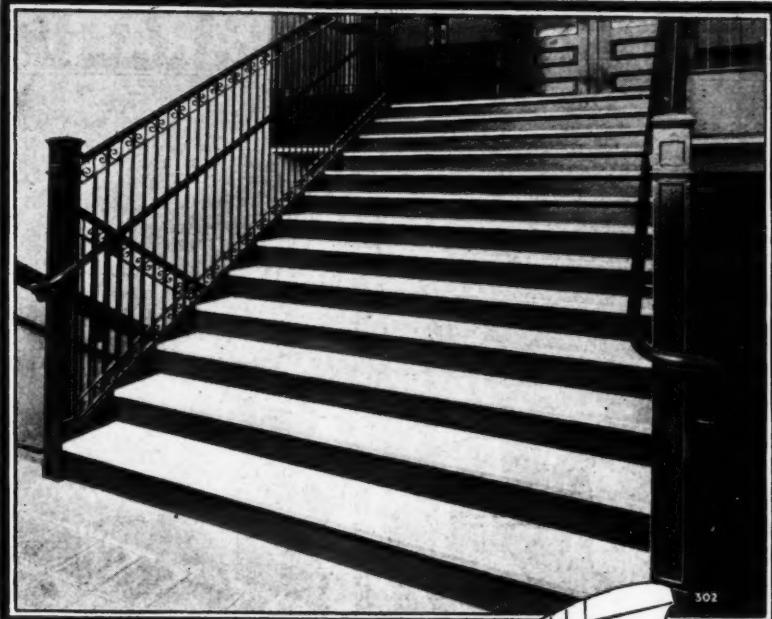
Hub Dome Bell on Mat

Manufacturers of Signaling Systems for over 50 years

**THE HOLTZER-CABOT  
ELECTRIC COMPANY**

125 Amory Street  
Boston, Mass.

6161-65 So. State Street  
Chicago, Ill.



Architectural dignity is a feature of this stairway in Carteret High School, Carteret, N. J.



## Safety — Beauty — Permanence

These three highly desirable qualities combine in Alberene Stone to make it the ideal material for stair treads and landings. It is slip-proof, always. It will not fracture, split, or scale off—it maintains its even surface. Its light gray color assures good "visibility" and blends with any color scheme. And it has the time-resisting qualities of the hills from which it is quarried.

Write for the Catalog, describing Alberene Stone not only for stair treads, but also for sanitary work, laboratory equipment, and shower compartments.

**ALBERENE STONE CO.**  
153 WEST 23d St. NEW YORK CITY.  
Boston, Chicago, Philadelphia, Newark, N.J., Pittsburgh.

## PLAYGROUND APPARATUS



Introducing—A New Feature!

### **EverWear**

#### MERRY-WAVE - STRIDE

PATENT APPLIED FOR

*"There'll be one on every  
playground this year"*

THIS new Everwear outfit incorporates an entirely new principle of play function. It has many of the pleasing features of a Merry-go-round, Ocean Wave and Giant Stride, combined, but blazes an entirely new trail for itself.

The illustration describes its fun producing possibilities. From 15 to 20 children of all ages can use it at one time. It is strong enough for adults to use with absolute safety. It occupies small ground space.

It features stretching exercises—so beneficial and so cordially recommended by Medical authorities and Physical Instructors.

The Everwear line of Steel Playground Apparatus is full of new things this year and you will want Catalog No. 19.

THE EVERWEAR MFG. CO.  
Springfield, Ohio  
U. S. A.

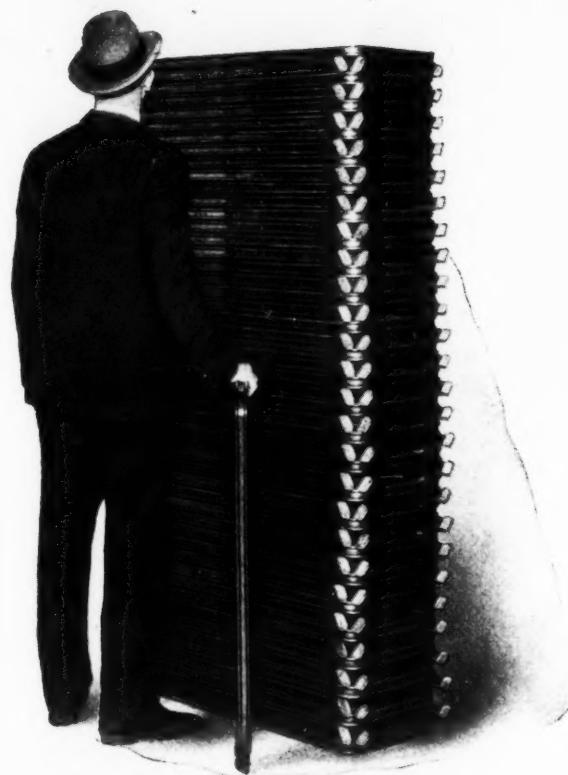
**EverWear**  
STEEL PLAYGROUND APPARATUS

# PAGE

## CHAIN LINK FENCE

America's  
first  
wire fence  
—since 1883





Clarin Chairs are made of steel (excepting seat and rubber floor contacts) and will not mar the finest floor nor damage the most delicate floor covering.

## *The Perfect Folding Chair* **MUST be compact**

A stack of fifty CLARINS is not as tall as the average man.

Let us at our expense send you a sample for comparison.

Clarin Mfg. Co., 2450 N. Crawford Ave., Chicago, Ill.

Please send by parcel-post prepaid—sample CLARIN CHAIR, finish and seat as checked:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Brown (walnut)    | <input type="checkbox"/> Battleship Gray | <input type="checkbox"/> Wood Seat        |
| <input type="checkbox"/> Maroon (mahogany) | <input type="checkbox"/> Olive Green     | <input type="checkbox"/> Leatherette Seat |

We will either return it or pay for it after ten days' trial.

Signed .....

## BOOK REVIEWS

### The Clothes We Wear

By F. G. Carpenter and Frances Carpenter. Cloth, 198 pages. American Book Co., New York, N. Y.

This is another of the Carpenter series of "Journey Club Travels" and is devoted to studies about clothes. The book is based on the best educational ideas of child interest and the subjects are presented as a series of developments and discoveries, rather than as lessons. The children go through a cotton field and talk with a planter; they follow the bales from the gins and visit a mill where they see the processes of cloth making; they go on trips to Belgium and Ireland where they are shown how linen is made; in Japan they see how silkworms are raised; they make a trip through a ready-made clothing factory in Chicago; they visit girls in Belgium where they study lace-making; they inspect shoes from all parts of the world and follow these with excursions through a button, a glove, and a hat factory.

Some suggestions are offered to teachers concerning classwork and arrangement of a museum.

### Elements of Agriculture

G. F. Warren. Cloth, 549 pages, illustrated. Published by The Macmillan Co., New York City.

Since its first publication in 1909 the present book has been widely used as an introductory high school text. The present edition has been entirely rewritten to conform with present-day farm conditions and methods and to bring to the students the latest statistics and facts.

### Psychological Analysis of the Fundamentals of Arithmetic

By Chas. H. Judd. Paper, 121 pages. Price, \$1. University of Chicago, Chicago, Ill.

This study of the mental processes of counting and making number combinations seeks to provide basic information on the educational psychology of arithmetic for the use of teachers and curriculum makers.

### The Houses We Live In

By F. G. Carpenter and Frances Carpenter. Cloth, 204 pages. American Book Co., New York.

This book is one of the Carpenter series of "Industrial Readers on Food, Clothing, and Shelter," and is intended for the use of pupils in the lower grades of the elementary schools.

The book takes the form of a travel club and the pupils make trips to various parts of the world to find out about the materials used in building their homes. They learn about the production of food, clothing, and shelter, and the manners and customs of the past in their own land and of people in other lands today. The features of transportation and commerce are brought out and all travels are along geographical lines.

The book should be especially helpful to the elementary teachers in leading up to a study of commercial geography. The material is based on the latest educational ideas of child interest and experience and the plan is developed through a chain of industrial projects and every possible device is employed to stimulate the imagination.

Some suggestions are offered concerning class-work and contents of the museum.

Among the topics covered are days in a lumber camp; a visit to a stone quarry; the story of brick; how steel is made; the wonders of glass; how wall paper is made, and treatment of the museum.

### Literature in the Junior High School

By Emma Miller Bolenius. Book II. Cloth bound, 684 pages. Price, \$1.48. Published by Houghton Mifflin Co., Boston.

The selections included in this book cover a wide range of subjects and a long list of authors. Part I deals with Travel and Adventure and thus provides descriptive material. Some of it is intended for study reading while some is pleasure reading. Part II is devoted to literary gems. The compiler provides a schedule of reading divided into ten groups. These assemble the different selections under definite headings.

The objectives of the junior high school are splendidly met in the selections and the method. A few of the recommended readings might well have been omitted—they are not up to the standard set in the book which is ample for the purpose intended.

### The Texas Ranger

By James B. Gillett in collaboration with Howard R. Driggs. Cloth, 226 pages, illustrated. Price, \$1.20. Published by World Book Company, Yonkers-on-Hudson, N. Y.

The title of the book promises all the thrill and excitement of southwestern frontier life. The au-

thor, who himself has witnessed that life, has provided an account that is bound to fascinate the red-blooded boy who loves to learn about cattle trails, Indian fights, the demonstration of physical courage, and the ultimate supremacy of right and justice.

The story affords a vivid picture of the life of a Texas ranger and its varied detail. Nor does it overlook the humorous side of frontier life. Its chief value, we think, is not in the material it provides for children's reading, but rather in the accurate and permanent record which it affords for adults who have reason to familiarize themselves with a phase of American life and history that has passed.

### Arithmetic Practice

Book one, for fourth grade, paper, 132 pages; book two, for fifth grade, paper, 119 pages. Published by Macmillan Company, New York, Chicago.

These booklets are intended as aids in finding and correcting weaknesses in the step difficulties of the arithmetical processes. The material is for optional use with McMurry and Benson's social arithmetic but is also usable with any basal text.

The booklet for the fourth grade contains lessons for finding weaknesses in addition, subtraction, multiplication, division, fractions, measuring units, reading and writing numbers, and telling time.

The fifth-grade booklet contains lessons similar to the first booklet, together with lessons in multiplication and subtraction of decimals, division of decimals, and lessons on finding other weaknesses in arithmetic.

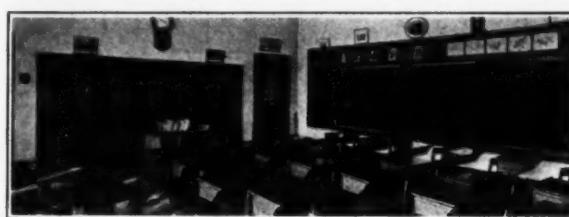
The last page of each booklet contains space for the teacher's record of the pupils' progress in arithmetic.

### World Geography—Book I. The New World

By Frank M. McMurry and A. E. Parkins. Cloth, 316 pages, illustrated. Published by The Macmillan Co., New York City.

This geography deals with North and South America, with special emphasis on the United States, and its territories and dependencies. It represents a revision of a former edition, much of the material, however, being entirely new.

The introductory chapters cover climatic conditions, note the Eskimo huts in Greenland, as well as the habitations in the tropical zone, the Indian wigwams in North America, and the pioneer's home in the temperate zone.



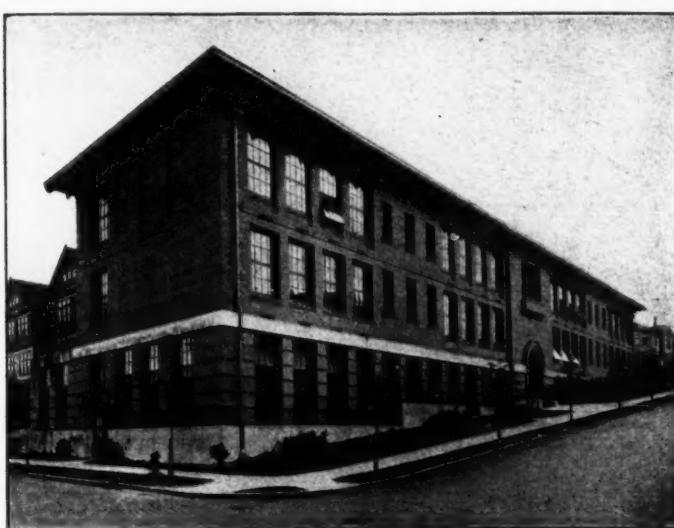
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The maps constitute a striking feature of the book. While they cover the political and physical phases of the country, they also bring out the climatic peculiarities. Population tables are interspersed through the pages.

#### Principles of Chemistry

By Joseph H. Roe. Cloth, 378 pages, illustrated. Price, \$2.50. Published by The C. V. Mosby Company, St. Louis, Mo.

Chemistry is rarely studied in these days as a pure science; and that is well, because the old courses lacked interest and application to life situations, and few students carried over into their professional, business, or home activities many of the principles and facts learned in the laboratory. The present book is of the new applied type of work in which only one class of students—nurses—are appealed to. While the course covers all the leading principles of inorganic and organic chemistry, practically every chapter has some application to the daily work of the nurse in the sickroom, the diet kitchen, and the hospital laboratory. Metabolism, diets, the digestion of foods, and valuable reference tables are especially stressed. Ample laboratory work for a 60-hour course is provided.

#### A State Educational System at Work

By M. V. O'Shea. Cloth, 368 pages. Published by The Bernard B. Jones Fund, Jackson, Miss.

The present book is a detailed report of the "intellectual status and educational progress of pupils in the elementary and high schools and freshmen in the colleges \* \* \* of Mississippi." The complete findings of the standard intelligence tests and of achievement tests in reading, writing, arithmetic, and language—as type subjects—are printed.

#### Classical Myths That Live Today

By Frances E. Sabin. Cloth, 432 pages. Illustrated. Price, \$1.92. Published by Silver, Burdett & Co., New York City.

The classic myths of Greece and Rome are here presented in attractive language, with a profusion of teaching aids. The illustrations have not been selected with the care that might be expected, and some are decidedly not suited to the book or to children's use.

#### The Constitution of the United States

By James M. Beck, LL.D. Cloth, 207 pages. Published by George H. Doran, New York.

The book is written with the thought that in order to appreciate and understand that great document, the Constitution of the United States, the story of its making must be known, and the causes that led to its creation must be explained. The author proceeds to make clear that it was not the work of fifty colonists, but rather the culmination of that constructive genius of which the English-speaking races were capable—the genius for representative government. He also makes clear that a knowledge of the constitution is necessary in order to understand the basic law of the land.

The basic principles of the constitution, as well as the political philosophy which underlie it, are fully discussed. The checks and balances in controlling authority are explained. The intentions and objectives of the framers of the sacred document are described.

The author is mistaken in the reviewer's opinion in crediting Montesquieu with exerting the greatest influence upon the framers of the constitution so far as the basic principles of government are concerned. Aside from the system of checks and balances which this writer suggested, the more important principles of the origin of human rights and governmental authority were stated by earlier Roman controversialists like Bellarmine. These men argued against the prevalent theory of the divine right of kings—a point of view which the constitution fully carries out.

The book is favored with a "Foreword" written by President Calvin Coolidge.

#### How to Work with Tools and Wood

Cloth, 179 pages. Stanley Rule & Level Plant, New Britain, Conn.

A careful, nontechnical statement of hand-tool processes as applied to woodworking. The book is equally valuable for school and home use.

#### A Detailed Analysis of Achievement in the High School

By Cecile White Fleming. Cloth, 209 pages. Published by Teachers College, Columbia University, New York City, N. Y.

Teachers who have used achievement tests and intelligence tests in high school have frequently remarked that factors outside the fields of these types of tests determine to a certain extent the success or failure of pupils. The author of the present study has sought to determine some of these elements of success and has tested a superior group of children in such important matters as character traits, including cooperative attitude and industry, on emotional stability and health, will-power, and to these tests she has added three intelligence tests and various specific achievement tests in high-school branches. Her findings indicate that there are definite relations between all these factors and that predictions of success as well as diagnoses of situations and remedial programs must take all elements into consideration.

#### The Child's Own Word Book

By M. M. Guhin. Cloth, 122 pages. Published by Hub City School Supply Co., Aberdeen, S. Dak.

This little book has some distinctive features as a primary reader. It employs the use of pictures and graphic representation to help in the use of sounds. Then it resorts to keywords as a means of gaining control over new words. The author holds to the thought that if the child is familiarized with the printed word in connection with sound as applied to the home, school, and playground, he will gradually widen his vocabulary in other fields of interest. The text is printed in heavy black type, and the illustrations, too, are held in strong lines.

#### The Storm of the Old Frontier

By Marshall R. Hall. Cloth, 302 pages. Price, 50 cents. Published by Henry Altemus Company, Philadelphia, Pa.

This is a story of the days in "forty-nine" when the covered wagon carried thousands of gold seekers and immigrants over the plains of the western frontier. It bears all the thrill and adventure of that period. There are Indians to be fought, desperadoes to be combated, hardships to be endured.

It tells the experiences of a prospector who braved the dangers of a new country with his daughter, and sacrificed his life in doing so. The interest of the story then centers upon the daughter, a brave girl, who is confronted with overwhelming odds, and who finally succeeds in winning safety and happiness.



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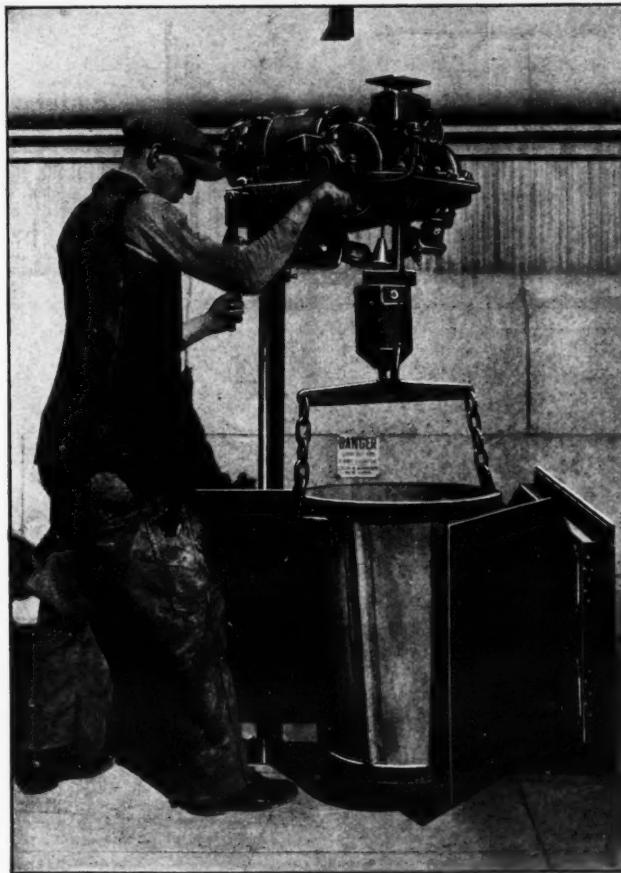
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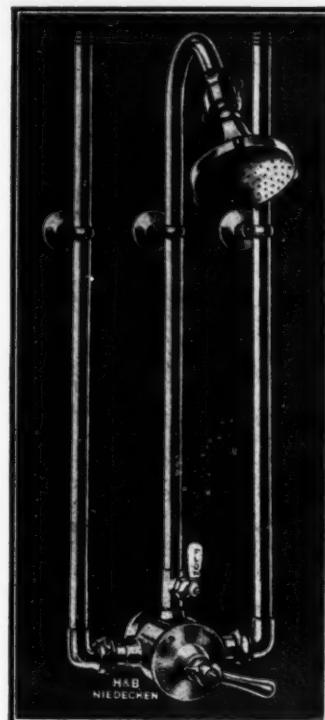
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**Practical Chemistry**

By N. H. Black and J. B. Conant; 522 pages. The Macmillan Co., New York, N. Y.

The title and subtitle of this book, which is a complete revision of a successful text first published in 1920, rather well express its aim and content: Practical chemistry; Fundamental Facts and Applications to Modern Life. The authors have covered the usual field for introductory classes and have sought to present the latest theories of atomic structure, ionization, radio activity, etc., in rather simplified, clear form. The purpose quite clearly is to present facts, laws, and theories with all possible evidence and proof and to make the work entirely usable by phenomena drawn from the student's life and by applications from essential industries and agriculture.

**Better English Habits—Book Two**

By Alma Blount and Clark S. Northup. Cloth, 175 pages, illustrated. Published by Wheeler Publishing Co., Chicago, Ill.

This book provides a balanced course in oral and written work for the fifth and sixth years.

**The Seats of the Mighty**

By Gilbert Parker. Edited by Wm. H. Otto. Cloth, 391 pages, illustrated. Published by D. Appleton & Co., New York City.

A school edition with notes, a biographical introduction, and word studies. Parts of the work are better suited to adult readers than to young folks, and some mature understanding of the author's attitude toward the French and their religious faith is desirable.

**Heart and Athletics**

By Dr. Felix Deutsch and Dr. Emil Kauf. Cloth, 187 pages. Price, \$2.50. Published by The C. V. Mosby Co., St. Louis, Missouri.

The text was originally written in German by two Viennese doctors with a view of determining upon the functional ability of the heart to bear athletic exercise. The translation into English was made by an American college professor.

The authors discuss the various forms of athletics, such as swimming, football, rowing, skating, skiing, boxing, bicycle riding, fencing, etc., etc., and note the extent to which the exertion affects heart action.

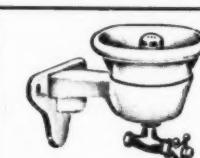
**Investigations in the Teaching of Science**

By Francis D. Curtis. Cloth, 341 pages. Published by P. Blakiston's Son & Co., Philadelphia, Pa.



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This work is a digest of investigations in the field of science teaching in elementary and secondary schools. Most of the studies are theses submitted for university degrees, some are magazine articles, and a few are committee reports for professional associations or city school systems. The author's desire to cover the entire field of possible science instruction has led to the inclusion of some studies of decidedly minor value and of some—like those on sex—which are quite outside the accepted field of science instruction in public schools.

**The Work of Boards of Education**

By Hans C. Olsen, Ph.D. Cloth bound; 170 pages. Published by Teachers College, Columbia University, New York City.

The author brings to his service the mass of fragmentary literature which deals with the various phases of school administration and builds out of it a serviceable book in which he defines the work of boards of education and superintendents.

After establishing the relations which must govern the board and its chief executive officer, the author outlines their work, and enumerates a long list of things that come under that heading. He touches upon the curriculum, school libraries, health service, athletic programs, student publications, religious education, school gardens, pageants, bands and orchestras, social centers, lectures, etc., etc.

The book also concerns itself with financial operations of a school system, with problems of buildings and repairs, selection of school sites, negotiations with architects, etc., etc. Questions of heating and ventilation, janitorial service, supplies and equipment, and a thousand and one things coming within the province of school housekeeping and management are dealt with.

**Publications Received**

*When to Issue School Bonds.* By Harold F. Clark and Paul Royalty. Bulletin No. 6, July, 1926, School of Education, Indiana University. Issued by the Bureau of Cooperative Research, Indiana University School of Education. The present pamphlet has been prepared by the authors in recognition of the fact that the source of material has not been the best and most complete. They do not claim to have solved the problem for all districts, or for any district, but their aim has been to interest schoolmen in the possibilities of the problem presented. The study points out periods in which bonds should not be issued. In general, it seems safe to say that bonds may not be issued

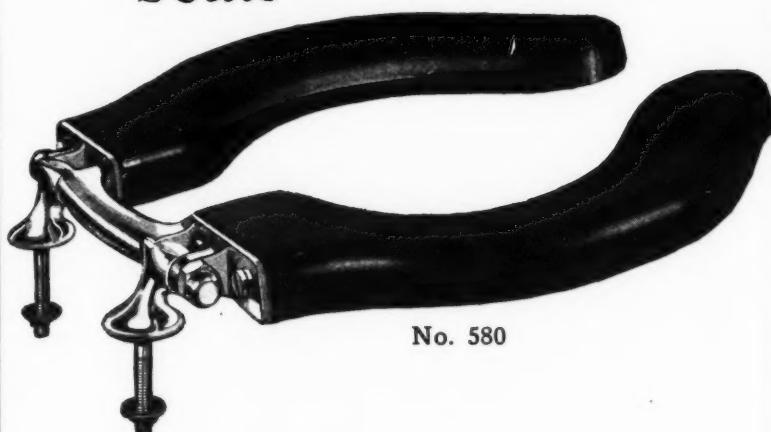
from the middle of December to the middle of January. The months of May, June, July, and August, together with the period from January to the middle of February, are considered the most advisable time to sell school bonds. The pamphlet discusses the relation of bond prices to money rates, and savings from selling bonds when money is plentiful. There are numerous graphs showing fluctuation of bond yields, the average yield of school-bond sales by months, periods in which bonds may be issued, and other useful information.

*Report of the School-Building Program of West Aurora, Illinois.* By N. L. Engelhardt. Issued by the board of education of District 129, West Aurora, Ill. The author points out that the criticism which has been leveled at public-school systems in the past has been partly due to the failure of boards of education to properly develop the school plants in which the educational organizations are to be advanced. Within the past few years school authorities have employed the technic of public-service corporations for the development of their school plants. School boards are now planning their school buildings in such a way as to meet future needs as well as to build for the present child population.

The author has applied a technic developed by himself and Professor Strayer and has studied the growth in school population, the growth in total population, the anticipated increases in school and general population, the zones of housing, the extension of the school district, and the planning of the future school-building program as based upon all of these elements combined.

The report presents two significant conclusions: "The first problem which requires the sincere and hearty cooperation of every citizen in West Aurora is the change in valuations to a point where the bonded indebtedness may be increased to carry out the recommendations made in this study. The second problem which should receive the cooperation of the citizens is the consolidation of the two districts so that the wealth of the entire city may be pooled in the support of the educational program for all the children of the community. There is no reason apparent to the author why the school districts should not be consolidated and placed under one board of education. This consolidation should result in providing more extended facilities for education than can be provided by each community separately. There need be no duplication of officers or supervisors."

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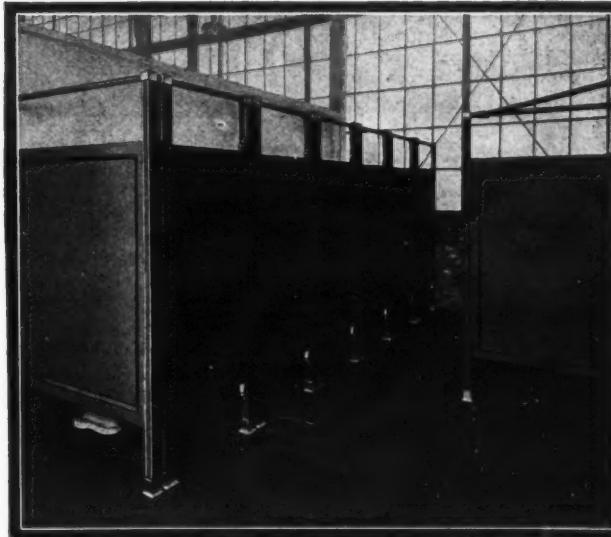
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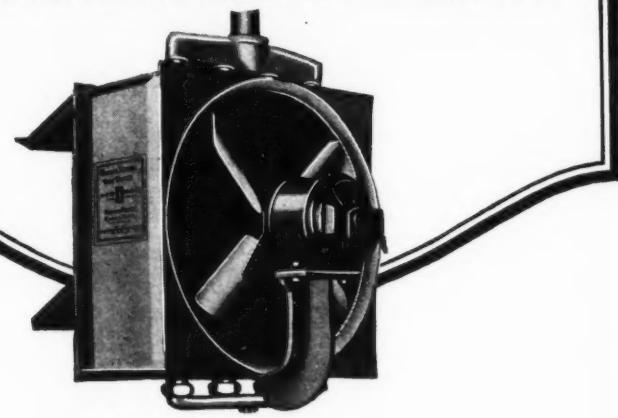
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### PUBLICATIONS RECEIVED

*Scales for Rating Pupils' Answers to Nine Types of Thought Questions in History, General Science, Civics, and English Literature.* For use in junior and senior high schools. Prepared by Charles W. Odell. Issued by the Bureau of Research of the University of Illinois, Urbana. The scales here presented are intended for determining pupils' answers to nine types of thought questions in the subjects listed in relation to analysis, cause or effect, comparison, criticism, discussion, explanation, relationship, and reorganization. Each scale is accompanied by a brief statement concerning the construction of the scales, an outline of the procedure, and directions for the use of the scale.

*Standards for the Administration Building of a School System.* Prepared by George D. Strayer, N. L. Engelhardt, and W. S. Elsbree. Published by the Bureau of Publications, Teachers College, Columbia University, New York. In the past, too little attention has been given to the accommodations for the administration department. The present pamphlet has been prepared with a view of offering practical suggestions for the location, arrangement, and equipment of administration offices. The authors favor, as an ideal plan, a separate building, specially designed to house the administrative and supervisory staff. Attention should be given to the function of each department and to the interrelationship between departments. The score card method, which has proved successful in evaluating school buildings, has been adapted for the measurement of administrative offices. Both the score card and standards are adapted for use in cities having a population of 25,000 or more.

*Scales for the Rating of Teaching Skill.* By L. J. Brueckner. Educational research bulletin No. 12, February, 1927. College of Education, University of Minnesota, Minneapolis. The present study was undertaken to develop an objective basis for rating teaching skill on the basis that differences in teaching skill may be detected through a study and analysis of the activities of the teacher and pupils in the classroom. The plan developed included eight different steps in procedure as follows: More than fifty descriptions of lessons by teachers of each of the four types of method, these ranging in skill from very superior to those considered to be failures; descriptions were limited to the field of geography taught in grades five and six, with similar sets for the other grades and for other subjects; references to factors other than descrip-

tions of method and outcomes were excluded, since a preliminary study revealed that undue stress on unimportant details aroused prejudices in individual raters; lessons for each of the four types of method were selected from the descriptions on the basis of a preliminary grouping according to the skill of the teacher; the nine lessons for each type were mimeographed in random order and distributed to the final judges who ranked them from best to worst according to the degree of skill described in each of the lessons; distribution of judgments of skill in accordance with the normal surface of frequency was adopted as the basis for determining the scale values of the steps, and the per cent of time one description of a lesson was judged better than another was transmuted into fractional units on the baseline of the normal frequency surface; each lesson rated by the group as poorest was assigned a value of 5 P. E. on the assumption that there might be a lesson which would be rated as inferior to this one by 100 per cent of the judges; the descriptions of the teachers rated lowest in teacher preparation, motivation, and purposing scales were evaluated by comparing them with the descriptions of skill in the compulsion scale which had the best graded units. The results showed that the descriptions of the four types of teaching rated lowest in terms of skill were practically equivalent in value. A rating of skill on any one of the four scales is equivalent to the same rating on any of the three other scales. The table included the average rank given each lesson by the group, the per cent of time each sample was rated, the P. E. values of the differences, and the scale values, both the true and the corrected. It is pointed out that the scales may be used for both administrative purposes and for teacher training. An analysis of the units of the scales makes clear the basis for the evaluation of the work of teachers by supervisors, since the scales represent the composite of the judgments of a large group of supervisors.

*The Distribution of the Tax Burden of Township and Community High Schools in Illinois.* Carl B. Althaus. Price, \$1. Published by the Illinois Agricultural Association, Chicago, Ill. The pamphlet is in the form of a thesis and represents the first comprehensive analysis of the operation of the Illinois high-school laws and of a type of legislation that is becoming increasingly common. The author shows that the estimated national income increased approximately 100 per cent from 1912 to 1922, therefore it seems quite clear that state and

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local expenditures have increased more rapidly during the decade following 1912 than has the estimated wealth of income. The rapid increase in current public expenditures is but one aspect of the situation, for there has been a marked growth in the total indebtedness of the several states. During the decade from 1912 to 1922, the net indebtedness of the states and subdivisions increased from \$3,821,896 to \$8,696,939. It is shown that from 1910 to 1923, state and local taxes increased 239 per cent, while full assessed valuation increased only 24 per cent, and estimated income, 117 per cent. In other words, the tax burden in the state has increased much faster than the ability of the people to bear the burden. The last part of the study is given to an evaluation of the findings and to proposed measures for relief of the financial situation.

*Classification is a Problem of Adapting School Instruction to the Differing Learning Capacities of Bright and Dull Pupils.* George A. Brown. This discussion presents some of the results of educational research affecting the classification of pupils for more effective instruction. The evidence indicates that both mental age and mental brightness need to be considered in classification and in determining the best methods of instruction. The paper discusses the measurement of mental differences, the relation of mental age to grade classification, and mental age and types of learning.

### Furniture Repairing at Sacramento, California

—The repair of school furniture in a large-city school system is a big task and at the same time means a large saving annually to the community.

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The regular shop-staff handles the repairwork in addition to the building of desks and tables. A survey of the work done by the shops in the upkeep of school furniture shows the many and varied tasks which the employees are called upon to perform. Furniture that would be considered fit for the waste heap is repaired and returned to the schools as good as new.

While the bulk of the repairwork is carried out during the latter part of the school year and in vacation months, considerable work is also completed during the mid-term.

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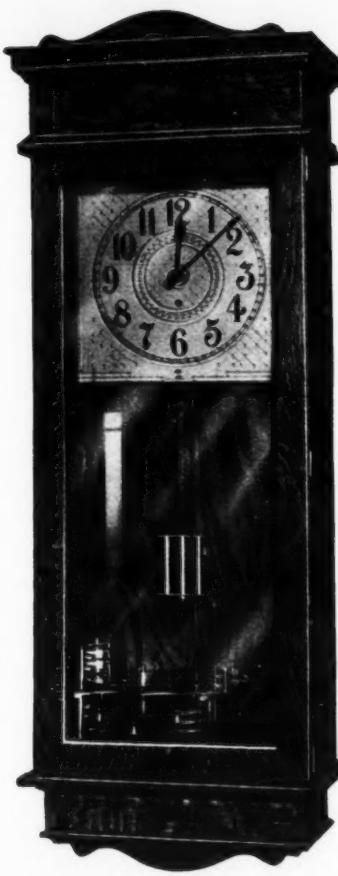
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#### CHICAGO CORRESPONDENCE

The Chicago school board may change its policy of financing school-building construction. Chicago now has no outstanding bonds for school buildings; it has always used the pay-as-you-go cash-payment plan. Even the tremendous postwar construction has been paid for from current yearly taxes. The building fund is now \$1 per \$100 of assessed valuation. This tax rate raises about \$18,000,000 a year.

A bill has been introduced at Springfield to reduce the building-fund tax rate from \$1.00 to 20 cents. Additional features of the bill are: The school board may levy additional taxes as needed to retire bonds and their interest; and, a referendum by the people may restore the old \$1 rate.

Meanwhile, the bill provides two other significant features, namely, the educational fund, from which expenses of teachers' salaries and school supplies are met, is to be increased from \$1.92 to \$2.32 (this will add about \$7,500,000 to the fund). And 40 cents will then be added to the city's tax rate for corporate purposes.

The net result is: No present increase in Chicago's tax rate. Relief for the educational fund. Relief for the city. The school board is compelled to finance its building construction by bond issue.

Various groups have aligned themselves on either side of the bill. The city club and the teachers' federation are opposing it; the mayor's advisory committee of 300 and the principal's club have endorsed it.

The point at issue seems mainly to be the question of policy of school-building construction. One group laments the change to a policy of bond issues. The other group points to the absolute necessity of getting relief for the educational fund before the schools are compelled to close, or other drastic action takes place (it is generally acknowledged that the schools cannot get through January and February, 1928, on the revenues in sight).

"Is McAndrew to Walk the Plank?" asks the Chicago Tribune in a headline, at the same time it announces "Thompson Man, McAndrew Foe, New Board Head." On May 25, J. Lewis Coath, manager of the picture and calendar department of the Manz Corporation, was elected president of the school board. Oscar Durante, editor of *L'Italia*, has also been appointed a trustee. Mr. Durante was born in Italy. He has a record as newspaper correspondent, consul, and editor.

The new school-board president has been the unrelenting foe of Superintendent McAndrew all dur-

ing the latter's term; heretofore, he was a minority member. Now he is dominantly in control. In fact, the four Dever appointees who are in minority have been given only one committee assignment each—to the committee of health and sanitation which normally meets only once or twice a year. The newly-appointed Thompson trustees and the Dever trustees who have apparently agreed to support the new mayor's program have been given four committee assignments each, and on committees which function.

There is considerable newspaper speculation whether Mr. McAndrew will be ousted at the close of the term in June or whether he will continue to the termination of his contract, February 1, 1928.

Any of the superintendent's recommendations to the school board seem destined for hard sledding. Already several of his reports to the board have been turned down. A teacher recommended for dismissal has been retained; another teacher transferred as unsatisfactory at a certain school has been restored; a recommendation that an "outside" man be elected music supervisor is said to have landed in the school-board wastebasket.

In addition to this, the school administration committee has recommended that Mr. McAndrew attend a hearing of the schools committee of the city council; it was planned to make this recommendation mandatory. The council committee has attempted unsuccessfully heretofore to get the superintendent before it.

In a speech given not long ago, Mr. McAndrew is alleged to have said that he was brought to Chicago to loosen the control of an "invisible government" on the schools. (The newspapers have variously interpreted this to mean the Chicago teachers' federation and the city council). The schools committee of the city council requested the superintendent to appear before it and explain what he meant. His written response to the invitation contained the following: "I have your invitation to appear before the council committee and I appreciate it. I don't mind the jokes of your merry members, discoursing on my personal appearance. I was young myself, once."

"The tenor of your resolutions asking for all papers, correspondence, telegrams, memoranda, and contracts, has so much flavor of *duces tecum* as to suggest that you are proposing to try me before your committee.

"I don't see what other than personal satisfaction to yourself could come of it. Much as I love you, I'll have to deny myself that favor to you. I am not seeking personal prominence nor publicity."

Following this refusal, the school administration committee of the school board took its action "urging" him to attend.

#### DUBUQUE ADOPTS NEW POLICY

—The board of education of Dubuque, Iowa, on May 23, adopted new rules to govern the administration of the schools. The following sections show the forward-looking policy of the board:

The board of education shall exercise all the powers, duties, responsibilities, and obligations given to it by law. The primary function of the board is the determination of general policies for, and the exercise of general supervision over the public schools. The details of administration will be carried out by its officers and employees, while the chief administrative officer will be held responsible for the administration and supervision of the school system.

The board will have one standing committee, designated the committee of the whole. The committee of the whole will meet at the call of the president, or of any three members, at such times, and places as it may elect. The committee of the whole may consider any business relating to the district whether the same has or has not been referred to it by the board. A report of the recommendations of the committee will be submitted at the next regular meeting of the board.

#### SCHOOL ADMINISTRATION

—Supt. R. Stewart Esten of Litchfield, Conn., in a recent public address, laid down the chief reasons for an individualized plan of instruction: (1) To deal with boys and girls as individuals, not in the mass. The assignment is not given as a group. (2) To improve the quality of the pupil's work. We have bright, mediocre and dull pupils, and this plan allows them to proceed at their own rate of speed. (3) To give the boys and girls a task which is definite, so that they may know exactly what is required. Also to cut down the number of failures.

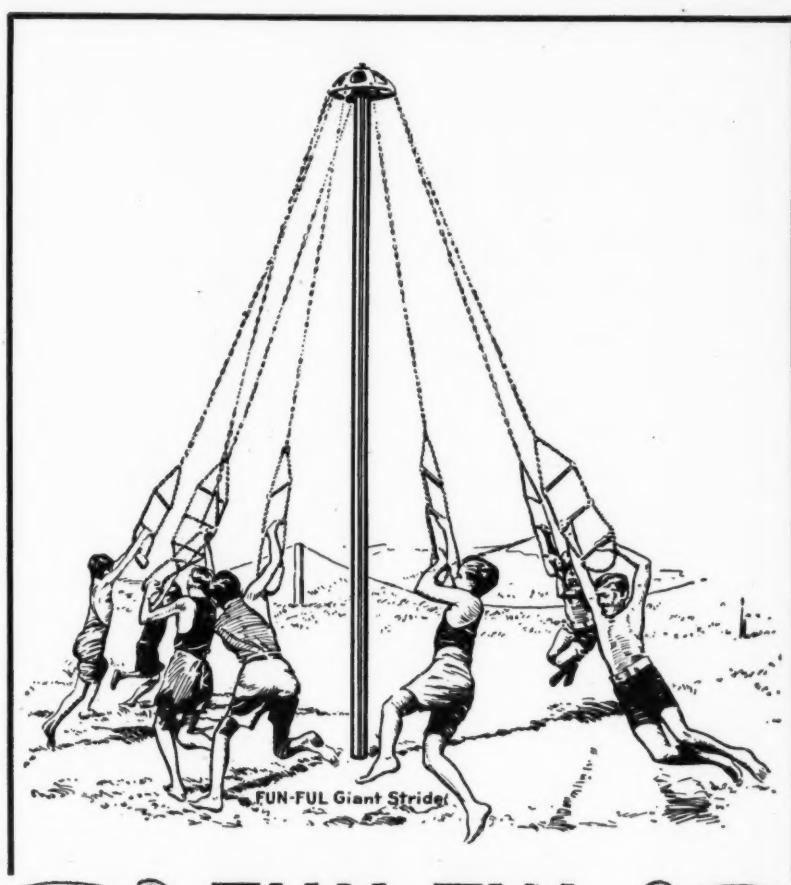
—The total number of pupils registered in the New York City schools during the spring months was 995,033. Of this number 849,730 were in the elementary schools, 134,811 in high schools, 5,839 in training schools, 4,234 in trade and vocational schools, and 419 in truant schools.

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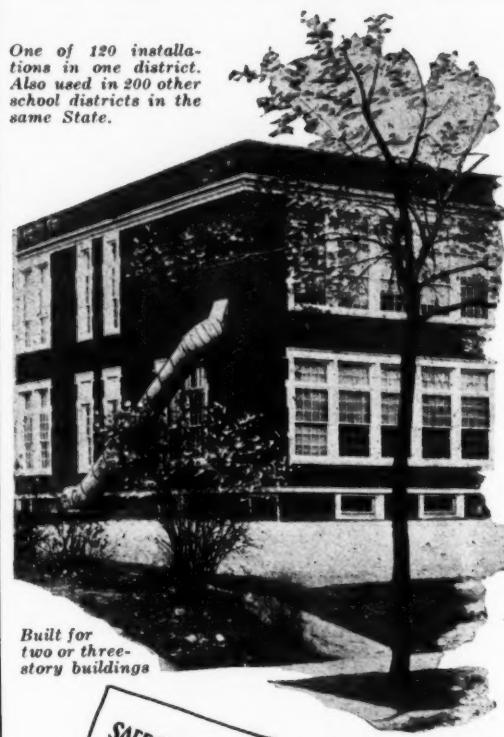
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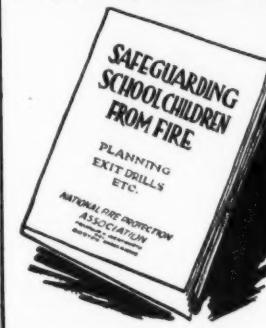
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### UPHOLDS VACCINATION LAW

The Supreme Court of New Hampshire has upheld the state law which requires that children be vaccinated or present a physician's certificate excusing them from vaccination.

The case which arose from a suit brought by a man named Barber against the school board at Rochester, began from the fact that the complainant refused to have his children vaccinated or to supply a certificate in the fall of 1925, relying on the continuance of a certificate presented in

1924. The board of education refused to accept the earlier certificate on the basis that there was no evidence that the children could not at the time be vaccinated. The court said in part:

"In the present case a proper certificate was furnished in 1924. The demand for a new certificate in 1925 precipitated the present controversy. The statute is silent as to how often a certificate may be required. It was the legislative intent to provide efficient protection, and the statute is to be construed accordingly. Conditions making it improper to vaccinate the child at one time might not

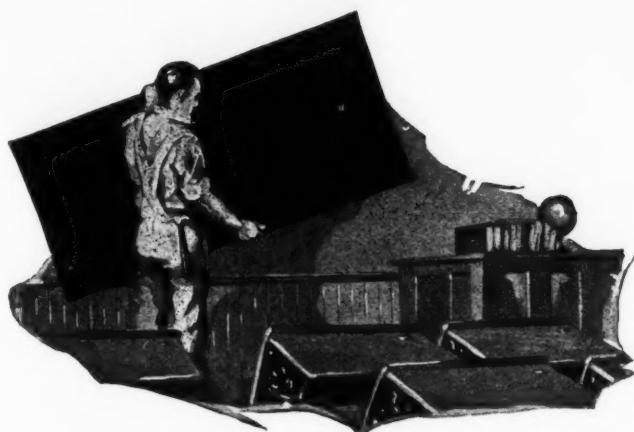
exist at a later date. Assuming that the physical conditions might be such as to show that the child would never be a proper subject for vaccination, and assuming that, in such a case, no more than one certificate could be required, the point of the present controversy was not reached. There was nothing to show the existence of such conditions here. The meaning of the statute is that a new certificate may be required whenever there is reasonable ground to believe that there may be such a change of conditions that the child is no longer an unfit subject for vaccination."

### STUDY OF SALARIES PAID HIGH-SCHOOL TEACHERS IN 39 OHIO CITIES

Data Collected by W. A. Walls, Kent, Ohio

Data as of May 1st, 1927

City	Population	Min- imum Salary	Min- imum Salary	Maxi- mum Salary	Maxi- mum Salary	H. S. Men	H. S. Women	Salary Men	Salary Women	Yearly Schedule	Yearly Increment	Average Salary	Average Annual Salary	Average Annual Salary	Rate for Schools	Rate for Schools (Inc. 2.65)	Total Budget	Amt. of Budget Spent for Sinking Fund	City
1. Athens	8,000	\$1,600	\$1,300	\$2,000	\$1,500	Yes	Yes	\$ 50	\$ 50	\$2,000	\$1,473	\$14,563,150	10.75	\$165,148.29	\$43,500.00	1			
2. Bedford	8,000	1,300	1,300	3,000	3,000	Yes	Yes	2,170	1,910	25,000,000	11.00	275,000.00	65,000.00	2					
3. Bellaire	15,000	1,400	1,300	2,000	1,950	No	Yes	100	100	1,725	1,620	23,500,000	11.15	256,000.00	30%	3			
4. Bellefontaine	10,000	1,400	1,200	1,900	1,600	No	Yes	100	100	1,750	1,750	13,070,000	11.27	174,650.00	35,604.00	4			
5. Bellevue	6,200	1,850	1,300	2,100	1,600	No	Yes	1,950	1,550	10,300,000	8.20	102,000.00	.....	5					
6. Berea	8,000	1,400	1,300	2,000	1,700	Yes	Yes	100	1,580	16,500,000	8.64	226,824.00	72,188.00	6					
7. Bexley	5,500	1,250	1,250	2,625	2,625	Yes	Yes	125	2,200	1,900	20,000,000	7.05	.....	.....	7				
8. Bowling Green	6,000	1,350	1,200	2,400	2,000	No	100-150	2,000	1,750	14,500,000	8.25	140,000.00	5,500.00	8					
9. Circleville	7,049	1,330	1,330	2,300	1,600	No	Merit	1,780	1,484	12,000,000	8.45	98,500.00	18,500.00	9					
10. Cuyahoga Falls	15,000	1,615	1,425	2,185	2,185	No	Yes	75	1,850	1,700	17,351,000	12.25	228,601.34	71,852.71	10				
11. Defiance	9,000	2,000	1,300	2,200	1,800	Yes	Yes	2,000	1,579	12,000,000	8.97	110,000.00	17,000.00	11					
12. Delaware	9,500	1,450	1,400	1,800	1,550	No	Yes	1,650	1,500	14,500,000	5.45	110,000.00	.....	12					
13. E. Palestine	5,700	1,200	1,200	1,575	1,575	No	60-90	1,435	1,306	7,291,930	12.93	98,870.00	27,635.00	13					
14. Euclid	11,000	1,550	1,550	2,500	2,500	Yes	Yes	100	2,277	2,003	40,374,000	10.08	403,000.00	131,032.50	14				
15. Fairport Harbor	5,000	1,400	1,250	1,900 <sup>1</sup>	1,400 <sup>1</sup>	Yes	Yes	62.50	1,400	1,250	7,385,000	13.93	141,000.00	54,625.00	15				
16. Fostoria	11,000	1,500	1,350	2,500	1,700	No	Not. def.	2,000	1,550	20,000,000	6.90	140,000.00	10,000.00	16					
17. Girard	8,500	1,350	1,350	2,150	2,150	Yes	Yes	100	2,053	1,721	17,183,770	9.15	264,700.00	40,980.00	17				
18. Grandview Heights	5,000	1,200	1,200	2,750	2,750	Yes	Yes	125	2,400	2,300	14,000,000	10.07	320,000.00	175,000.00	18				
19. Greenville	7,500	1,400	1,400	2,200	2,200	Yes	Yes	45	1,474	1,300	13,826,000	10.45	.....	.....	19				
20. Kenmore	20,000	1,350	1,125	1,750	1,525	Yes	Yes	30-50	1,631	1,300	17,748,050	12.50	243,163.26	77,166.93	20				
21. Logan	6,000	1,500	1,100	2,000	1,600	Yes	Yes	100	1,750	1,350	9,500,000	10.90	126,082.00	31,796.00	21				
22. Martins Ferry	15,000	1,300	1,300	2,500	1,800	Yes	Yes	100	1,950	1,537	21,500,000	9.95	246,000.00	48,700.00	22				
23. Miamisburg	5,000	1,850	1,200	2,000	1,575	Yes	Yes	90	1,850	1,545	10,000,000	10.39	112,000.36	21,812.50	23				
24. Mingo Junction	5,000	1,500	1,200	2,000	1,800	No	50-100	1,925	1,650	15,500,000	9.24	152,000.00	40,000.00	24					
25. Oberlin	4,236	1,500	1,000	1,900	1,600	Yes	Yes	100	1,783	1,562	7,839,663	10.97	123,488.02	33,796.70	25				
26. Painesville	7,272	1,500	1,500	2,200	2,200	Yes	Yes	100	2,033	1,732	16,528,780	10.91	217,371.56	44,326.84	26				
27. Piqua	16,000	1,700	1,300	2,000	1,650	No	Yes	100	1,890	1,565	30,000,000	8.05	250,000.00	50,000.00	27				
28. Ravenna	7,000	2,280	1,400	2,500	1,955	Yes	25-100	2,140	1,705	15,300,000	9.97	159,866.03	34,112.50	28					
29. Salem	12,000	1,300	1,300	2,000	2,000	Yes	Yes	75	1,858	1,664	19,685,170	9.45	186,024.85	49,212.92	29				
30. Shelby	6,000	1,600	1,200	2,000	1,800	No	Yes	1,677	1,470	11,936,140	9.65	116,161.43	33,532.50	30					
31. Tiffin	16,000	1,500	1,200	1,950	1,550	No	50-100	1,700	1,450	25,000,000	6.75	157,830.95	35,637.50	31					
32. Troy	8,000	1,800	1,200	2,500	1,750	Yes	Yes	100	2,214	1,510	15,048,050	8.47	120,000.00	16,000.00	32				
33. Urbana	8,000	1,600	1,300	1,750	1,450	No	Yes	1,675	1,371	14,000,000	6.55	120,153.08	18,950.00	33					
34. Van Wert	8,100	1,620	1,350	2,160	1,710	No	Yes	1,895	1,525	13,200,000	10.32	140,000.00	23,000.00	34					
35. Wadsworth	5,400	1,350	1,350	none	none	No	Yes	1,600	1,540	10,000,000	10.75	135,000.00	37,000.00	35					
36. Wapakoneta	5,600	1,350	1,200	2,000	1,800	No	Yes	50	.....	.....	8,130,000	9.15	77,000.00	.....	36				
37. Xenia	10,000	1,400	1,350	2,400	1,800	No	Yes	1,690	1,550	14,900,000	13.05	193,805.20	79,046.91	37					
38. Kent	8,000	1,600	1,400	2,400	2,000	No	Yes	100	1,966	1,705	16,284,570	10.61	187,191.09	41,869.98	38				
39. Greenfield	5,000	1,700	1,300	2,500	1,900	No	Yes	2,180	1,469	10,000,000	12.50	143,000.00	30,000.00	39					
Average	1,503	1,289	2,164	1,863	1,863	Aver.	1,880	1,598	15,932,771										



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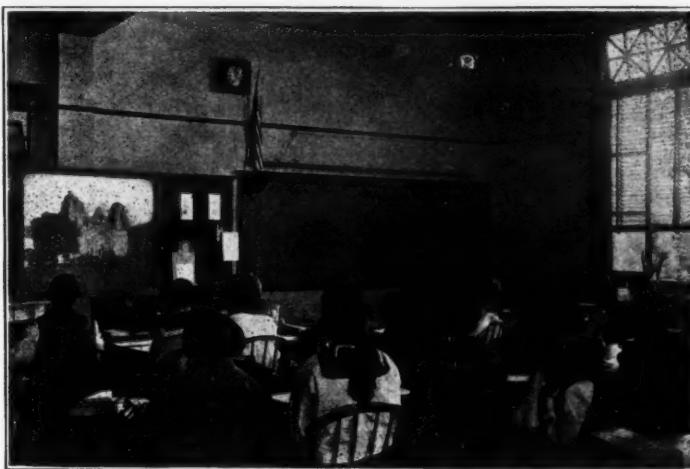
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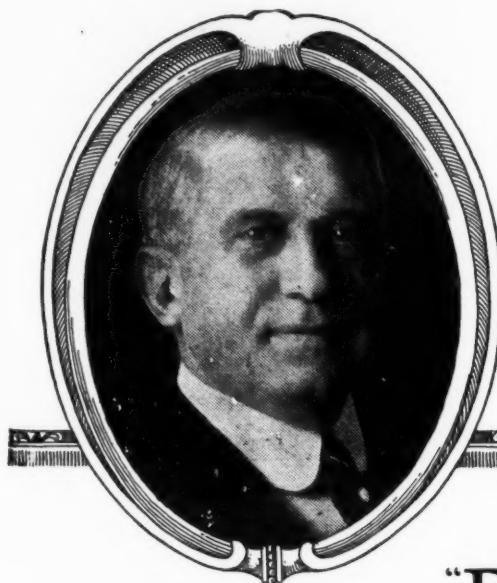
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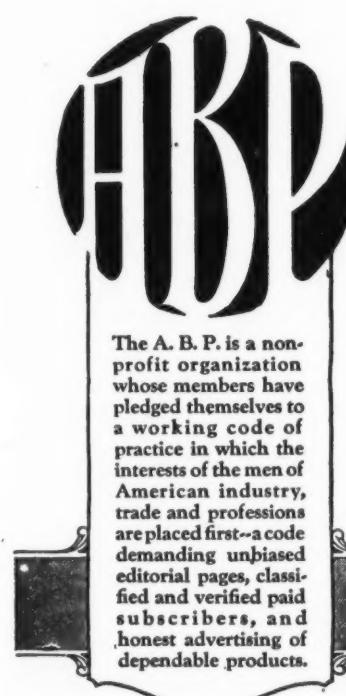
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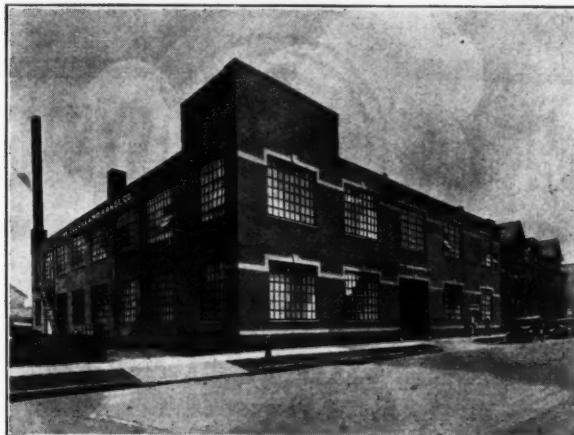


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## A CHECK LIST FOR IMPROVING THE TEACHER'S EFFICIENCY

Mr. H. H. Smith, superintendent of schools at Hammonton, New Jersey, has devised a checking list which makes it possible for every teacher to take an inventory of her stock as a teacher. The list enumerates eighteen points which enter into, or determine, the real worth of a typical recitation. The teacher is asked to measure her work in the light of these eighteen points, and to fix her own standard or goal of attainment toward which she is to strive. A copy of the checking list was sent to each teacher on the teaching staff. The list of points is given below:

1. How does the teacher receive her class?
2. Is classwork begun promptly?
3. Are materials at hand, plans for work present, and administration of passing out materials worked out?
4. What is the attitude of the pupils toward the teacher? Teacher toward pupils?
5. Is there evidence of careful planning?
6. Are aims clearly stated?
7. Are questions thought-provoking?
8. To what extent is the present recitation tied up with preceding recitations?
9. How much illustrative material is used, such as maps, globes, pictures, supplementary books, magazines, etc.?
10. Are good habits of work in evidence?
11. Do children waste time?
12. Are practical results in evidence?
13. Does class judge own results and form conclusions?
14. Does the class finish on time?
15. Does class leave the recitation with a definite purpose in mind for next lesson?
16. Is conduct and control by pupils or teacher?
17. Is the classroom attractive?
18. Is the teacher's personal appearance what it should be?

## THE ELIMINATION OF NONPROMOTION AND RETARDATION

—Principal Joseph T. Griffin, of the New York City schools, in a recent report to Supt. William J. O'Shea, has presented a plan for the elimination of nonpromotion and retardation of pupils in school No. 114, Manhattan.

An intensive study of the nonpromoted children disclosed the fact that the vast majority were "leftbacks" because of failure in the so-called major subjects such as arithmetic, etc., while in the other subjects their work was satisfactory. In fact, they were rarely deficient in every subject. It was shown that the system of nonpromotion compelled the children to repeat the work in subjects in which they had passed, and made no adequate attempt to

measure the degree of the deficiency in the subjects in which they had failed.

Since there was such a serious economic and spiritual loss in holding a child back one term, and since he had to be promoted at the end of the second term by official direction, it was urged that he be promoted the first term, with continued instruction to overcome a special deficiency. The school authorities were forced to the conclusion that non-promotion serves no useful purpose and should be abolished.

While every child is advanced or promoted to a higher-grade classification, it does not mean that he is promoted in all subjects for that grade. The great point of difference between the present plan and others in use is that no attempt is made to correct deficiencies in one term or two; the pupil has the full time up to graduation to make up such deficiencies.

Under the new plan, it has been demonstrated that it is not necessary for teachers to hold the threat of nonpromotion over the heads of pupils in order to make them study. The child is made cognizant of his shortcomings and is given an opportunity and sufficient time in which to make these up. The pupil is encouraged by the cheering psychology of success—even though this success is only partial, while under nonpromotion he is weighted with the depression of complete failure. The parents are made happy at the evidence of the children's progress and interest in school. This is not the least of the advantages of the plan.

## PRINCIPLES FOR THE PROMOTION OF PUPILS

The research department of the National Education Association has issued a report in which are discussed the principles governing the promotion of pupils in the schools.

The report shows that the problem of promotion has received special attention in at least three school systems, namely, Baltimore, Chicago, and Philadelphia. The study was limited to 67 cities over 100,000 population to which 44 replies were received.

The replies were grouped according to rules governing promotions, and according to probationary promotions. Pupils were listed as belonging to homogeneous groups, differentiated groups, or groups promoted at stated times. Of the 44 cities replying, 16 had no rules governing promotion, while 9 had adopted rules. In Birmingham, there

is regular promotion for all pupils having a semester mark of 65 or above; conditional promotion for those below 65, and nonpromotion for those below 65 in more than one fundamental subject. In New Orleans, regular promotions are in use for pupils whose work in all subjects is satisfactory or better; special promotion for pupils graded unsatisfactory in not more than two basic subjects and two of the remaining subjects; pupils not eligible to promotion may take examinations covering the unsatisfactory work; pupils may skip a grade by passing an examination on the work of that grade. In Springfield, Mass., promotion is dependent upon the combined judgment of the teacher and principal, except in special cases which are referred to the bureau of research. In Worcester, Mass., promotions are based on the work in the four principal subjects; and average mark of 65 or above makes the pupil eligible for promotion; less than 65 in one subject with 75 per cent or over in the three others, full promotion; less than 65 per cent in one subject, and between 65 and 75 per cent in others, trial promotion; less than 65 per cent in two subjects, no promotion. In Minneapolis, pupils must have an average not lower than D (lowest passing mark), although two or three major failures may result in repetition of the grade. In Omaha, Nebr., there are rules governing demotion only. Parents must be given ten days' notice of demotion of pupil. In Newark, N. J., an average of 70 per cent on the work of the term is the standard of promotion in doubtful cases. The teacher and principal are given discretion in determining promotions.

## GRADUATION EXERCISES

—John Vaughn who succeeds M. A. Nash as state superintendent of schools for Oklahoma, delivered the graduation address at Perry, Okla.

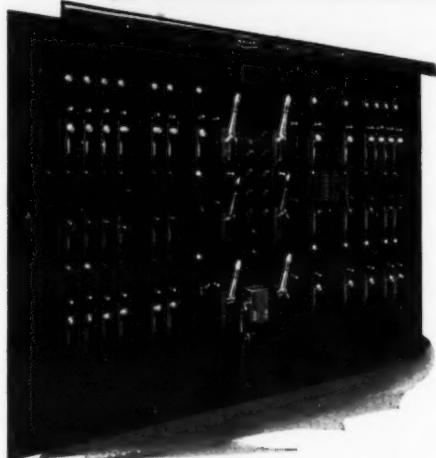
—G. M. McCommon, superintendent of the Shadyside, Ohio, schools, delivered the graduation address at the high-school commencement, Jefferson, Ohio.

—The commencement sermon of the Mount Pleasant High School at Columbia, Tenn., was delivered by Supt. C. B. Ijams of Jackson, who is a member of the Tennessee state board of education. Certificates of teachers' classes were presented by Supt. Gordon H. Turner and diplomas were presented by Dr. C. Y. Clarke, secretary of the board of education.

—Supt. J. J. Phillips, of Lancaster, Ohio, delivered the high-school commencement address at Ada, Ohio.



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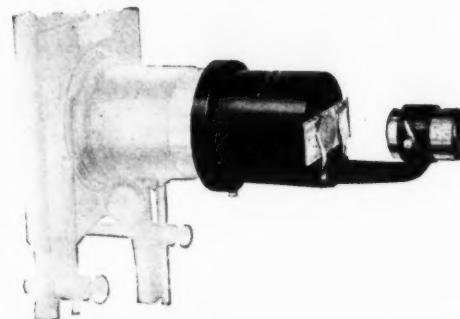
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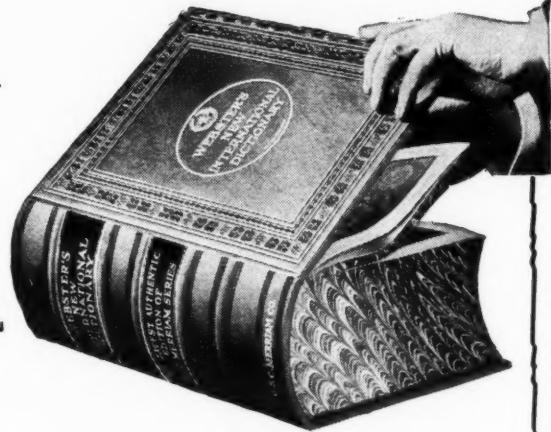
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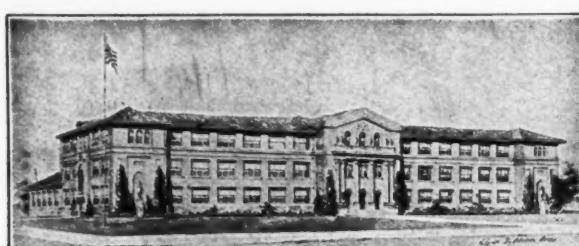
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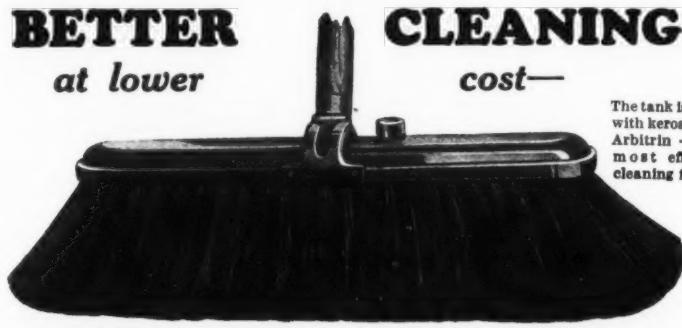
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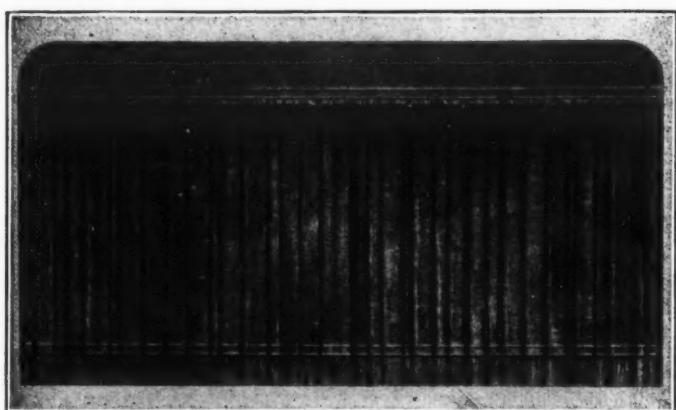
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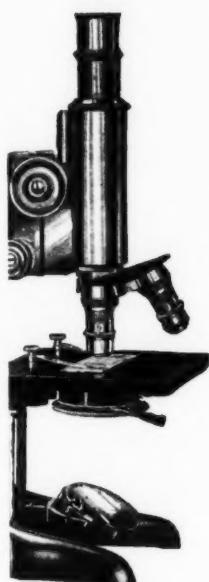
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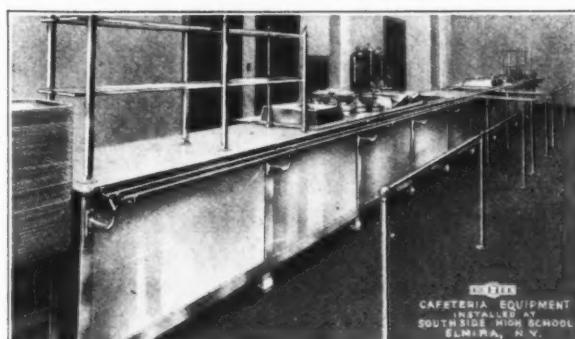
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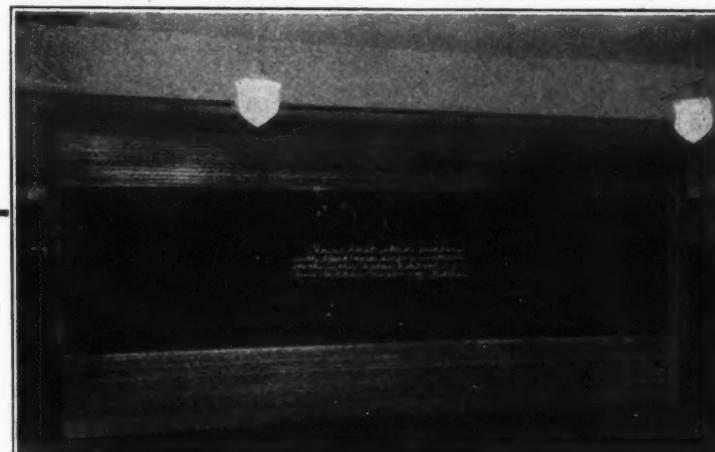
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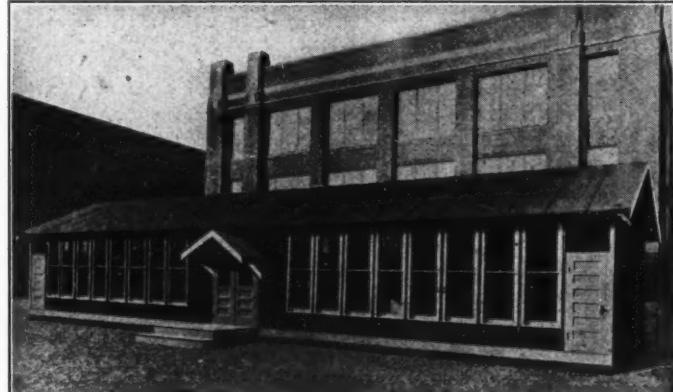
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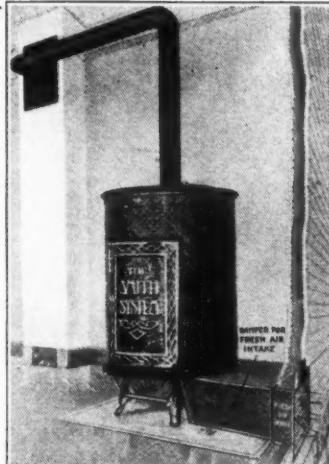
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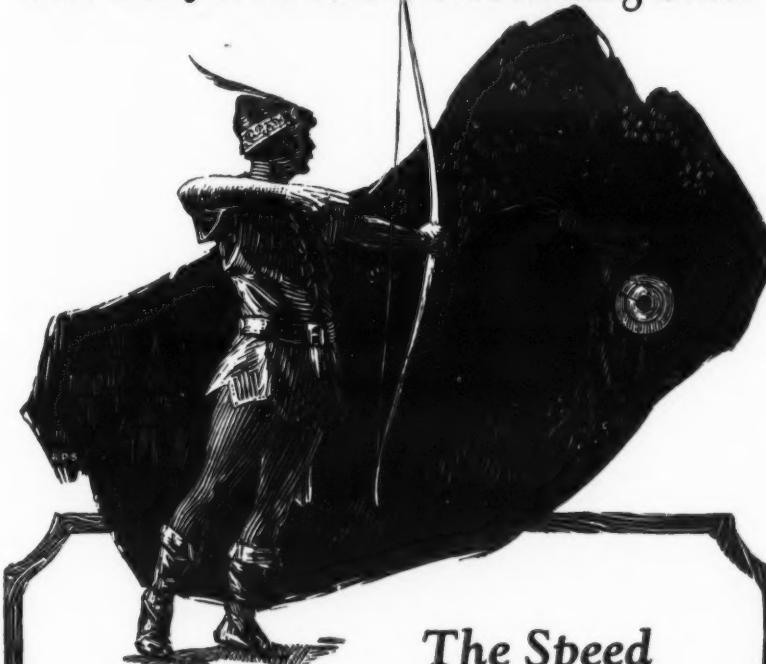
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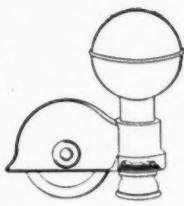


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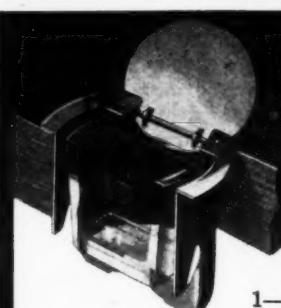
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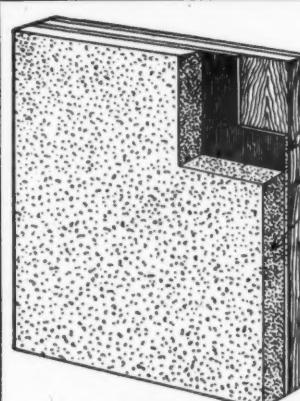
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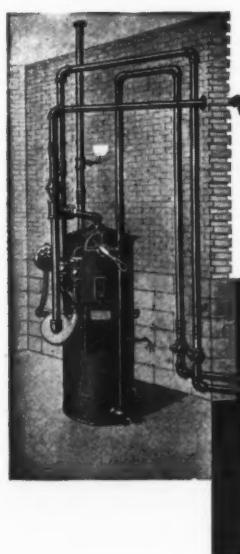


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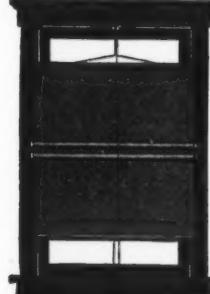
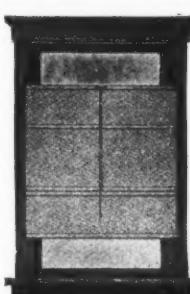
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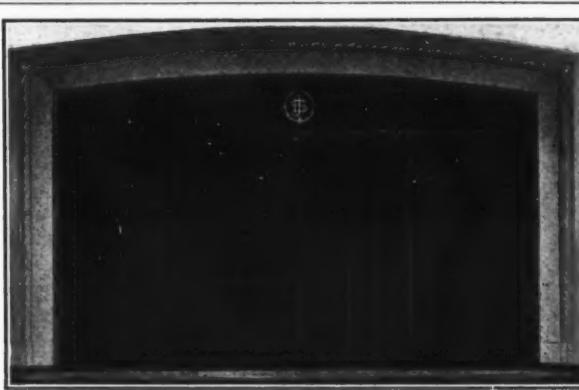
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**GREAT AMERICAN TEACHERS' AGENCY.** We are pleased to announce that we have acquired the PENN EDUCATIONAL BUREAU. 48th year. "Oldest teachers' agency in the United States under one continuous management." By this union we have added many years of experience to our efficient organization. We are now able to serve school officials and teachers better than ever before.

Offices: 205 North Seventh St., Allentown, Pa. P. O. Box 157

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Teachers' Agency

Established 1885

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Still under same active  
management. Best Schools  
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Best qualified men  
and women on our avail-  
able list. Prompt service.  
Other Offices—New York,  
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**THE H. D. YATES TEACHERS' BUREAU**  
1377 Arcade Building H. D. YATES, Mgr. ST. LOUIS, MO.  
We think we have a fine list of teachers for grade,  
high school and administrative positions.  
**YOUR VACANCIES ARE APPRECIATED.**

Selective List of Available Candidates  
**CALVERT TEACHERS' AGENCY**  
2024 North Calvert St., Baltimore, Md.  
Free Registration—No Charge Till Placed  
Now is the time to register.

For those LAST-MINUTE VACANCIES in elementary and high schools we have well qualified men and women. Write today to the Agency that gives discriminating service.

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Receives calls at all seasons for college and normal graduates, specialists, and other teachers in colleges, public and private schools, in all parts of the country. Advises parents about schools.

## Classified Wants

### LIBRARY SUPPLIES

Supplies, manuals, and all necessities for maintaining school libraries. Illustrated pamphlet "First steps in organizing the school library" sent free. Gaylord Bros., Inc., Syracuse, N. Y., and Stockton, Calif.

### POSITIONS OPEN

(A) School Nurse position open in interesting city far Northwest. Pays \$1400 to \$1500 for nine months. (B) Southeastern city and County Public Health position open. Coast state. Apply at once. (C) Visiting Nurse wanted for Medical Settlement connected with centralized school in Southern mountains. Requires a woman about 35 of high ideals and courage. \$100 and expenses. No. 1420 Aznoe's Central Registry for Nurses, 30 North Michigan Avenue, Chicago.

## TEACHERS SUPPLIED

College Presidents, Deans, H. S. Superintendents, Boards of Education, cordially invited to report your vacancies to

**THE WESTERN REFERENCE & BOND ASSOCIATION**  
A Teachers' Placement Bureau

John W. Million, Pres.  
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May, June and July—the big months. Write, telegraph, telephone:  
400 Gates Building — KANSAS CITY, MO. — Phone, Main 5108

## SOUTHERN TEACHERS' AGENCY

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Continuous registration in four offices  
No advance fees  
Covers Middle Atlantic, South and Middle West

## THE CONTINENTAL TEACHERS' AGENCY BOWLING GREEN, KENTUCKY

has for thirty-six years been serving school officials and teachers  
in every state in the Union.

**PROMOTION** for worthy teachers is our aim. Our placement service covers the entire United States. THE OHIO TEACHER, a magazine for ambitious teachers, is 47 years old and circulates in every State. Write for Booklet describing our method of placing teachers in all kinds of teaching positions, including colleges.

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### High Class Teachers Furnished.

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Established, Experienced, Dependable. Let US serve YOU.

## THE IMPROVED "CLICK SYSTEM" "MASTER SPECIAL" KEYLESS PADLOCK

An Achievement in Economy and Utility. Made up special for Lockers and Boxes, in any degree of security required.



Cut about 1/2 actual size.

Sample and Special proposition to Operating School Officials, on request.

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### FOR SALE

206 shares of common stock of the Wiese Laboratory Furniture Company for sale. Cheap! Address F. H. Wiese, 279 W. Williams Street, Decatur, Ill.

### WANTED

Will pay 25 cents each for copies of the January and March, 1920, February, March, and April, 1921, and January, 1924, issues of the American School Board Journal. Copies must be in fairly good condition. Address reply to Subscription Department, American School Board Journal.

*What  
does it cost  
to maintain your washroom*

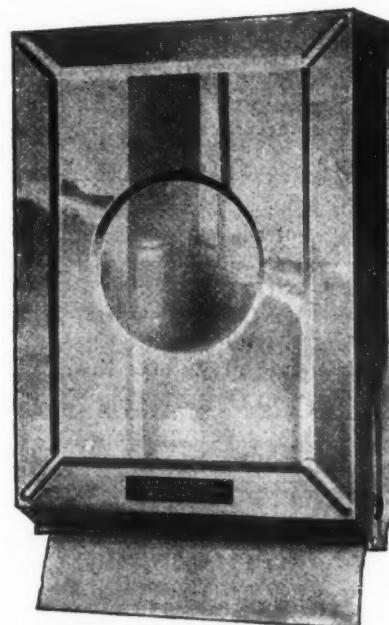
**NIBROC—the perfect paper towel**

points the way to reduced towel costs. Considerably worthwhile savings in washroom maintenance are achieved by standardizing on Nibroc—the perfect paper towel. A comparative test will convince you that Nibrocs go farther. It takes fewer to do the job better.

One wipes dry! If you have been accustomed to using two or even three paper towels—Nibrocs will prove a revelation in economy. Absorbent qualities of a single Nibroc Towel are sufficient to thoroughly dry the wettest pair of hands. Even children learn this fact.

For your convenience and economical protection, Nibrocs are distributed one at a time from their dust-proof metal cabinet. Nibroc Cabinets hold twice as many towels as the ordinary cabinet and hence require but half the attention. Another factor of economy.

*Descriptive Material and Samples on Request*



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58 Sutter Street

# School Board Journal

## DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

### ACOUSTICS

Cabot, Inc., Samuel  
Celotex Company, The

### ADJUSTABLE SHELVING

Garden City Plating & Mfg. Co.

### AIR CONDITIONING

American Blower Company  
Buckeye Blower Company  
Buffalo Forge Company  
Nelson Corporation, The Herman

### AIR WASHERS

American Blower Company

### ALUMINUM WARE

Permalium Products Co., The

### ARCHITECTS

(See Schoolhouse Architects' Directory)

### ASH HOISTS

Gillis & Geoghegan

### AUDITORIUM SEATING

American Seating Company

### BASEMENT SASH, STEEL

Detroit Steel Products Company

### BASEMENT WINDOWS, STEEL

Detroit Steel Products Company

### BLACKBOARD CLEANER

Lupton's Sons Co., David

### BLACKBOARDS—MFRD.

Beaver Products Co., Inc., The

### BLACKBOARDS—SLATE

Mohawk Slate Machine Co.

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Flanagan Company, A.  
Natural Slate Blackboard Co.  
Penna. Structural Slate Co.  
Rowles Co., E. W. A.

### BLEACHERS

Circle A Products Corp.  
Leavitt Mfg. Company  
Wayne Iron Works

### BOILERS

Frost Mfg. Company, The  
Heggie Simplex Boiler Company  
Kewanee Boiler Company  
Pacific Steel Boiler Corp. of Ill.

### BOOK COVERS

Holden Patent Book Cover Co.  
Iroquois Publishing Company  
Walraven Book Cover Co., A. T.

### BOOKKEEPING MACHINES

Remington Typewriter Company

### BOOK PUBLISHERS

American Book Company  
Bruce Publishing Co.  
Grieg Publishing Company  
Harter School Supply Company  
Heath & Co., D. C.  
Houghton, Mifflin Co.  
Iroquois Publishing Company  
Laidlaw Brothers  
Lippincott Company, J. B.  
Merriam Co., G. & C.  
Winston Co., The John C.

### BRUSHES

Milwaukee Dustless Brush Co.  
Palmer Company, The

### BUILDING MATERIAL

Asbestos Buildings Company  
Detroit Steel Products Company  
Duriron Co., Inc., The  
Indiana Limestone Company  
Lupton's Sons Co., David  
Milwaukee Corrugating Company  
National Assn. of Marble Dealers  
Structural Slate Company  
Truscon Steel Company

### BUILDING STONE

National Assn. of Marble Dealers

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Flanagan Company, A.  
N. Y. Silicate Book Slate Co.  
Rowles Co., E. W. A.  
Weber Costello Company

### BUSES

Graham Brothers

### CAFETERIA EQUIPMENT

Blickman, Inc., S.

### CHALKS

Dougherty & Sons, Inc., W. F.

### CLEANERS

Permalium Products Co., The

### CLOCK PROGRAM

Hansen Manufacturing Company

### CLOTH BLACKBOARDS

Standard Electric Time Co.

### COOK TILE AND CORK CARPET

Wiese Laboratory Furniture Co.

### COOKING APPARATUS

Dougherty & Sons, Inc., W. F.

### CRAYONS

American Crayon Company

### CRAYON COMPASSES

Breckley-Cardy Company

### CRAYON TROUGHS

Binney & Smith

### DEAFENING QUILT

Flanagan Company, A.

### DESKS

National Crayon Co.

### DESKS—OFFICE

Rowles Co., E. W. A.

### DISHWASHERS

Weber Costello Company

### DISINFECTANTS

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### DOMESTIC SCIENCE EQUIP.

Continental Chemical Corporation

### DOOR CHECKS

Palmer Company, The

### DOOR HOLDING EQUIPMENT

Christiansen, C.

### DOORS, STEEL-FIREPROOF

Glynn-Johnson Corporation

### DRINKING FOUNTAINS

Detroit Steel Products Company

### DRAFTING DEPT. FURNITURE

Lupton's Sons Co., David

### DOOR KNOBS

Wiese Laboratory Furniture Co.

### DOOR PULLS

Norton Door Closer Co.

### DOOR SWINGS

Sargent & Company

### DOOR TRIM

Freeport Gas Machine Co.

### DRUMS

Kewaunee Mfg. Co.

### DRYER

Peterson & Co., Leonard

### DRYER

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### DRYER

Van Range Co., John

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Wiese Laboratory Furniture Co.

### DOOR CHECKS

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### DOOR SWINGS

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### DOOR SWINGS

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### DOOR SWINGS

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### DOOR SWINGS

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### DOOR SWINGS

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### DOOR SWINGS

Graybar Electric Company

### DOOR SWINGS

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### DOOR SWINGS

Palmer Company, The

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American Fence Construction Co.

### FENCES

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Cyclone Fence Co.

### FENCES

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### FENCES

Stewart Iron Works Co., The

### FENCES

Wayne Iron Works

### FILING SYSTEMS

Rand Kardex Bureau

### FIRE ALARM SYSTEMS

McNear & Co., C. W.

### FIRE ESCAPES

Standard Electric Time Company

### FIRE ESCAPES

Logan Co. (Formerly Dow Co.)

### FIRE ESCAPES

Potter Manufacturing Corp.

### FIRE ESCAPES

Standard Conveyor Company

### FIRE EXIT LATCHES

Potter Manufacturing Corp.

### FIRE EXIT LATCHES

Sargent & Company

### FIRE EXIT LATCHES

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### FIRE EXIT LATCHES

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Detroit Steel Products Co.

### FIREPROOF DOORS

Lupton's Sons Co., David

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### FIREPROOFING MATERIALS

Milwaukee Corrugating Company

### FLASHES

American Crayon Company

### FLASHES

Circle A Products Corp.

### FLASHES

Mershon & Morley

### FLASHES

Togan-Stiles Company

### CHARTS

Nystrom & Co., A. J.

### CHARTS

Union School Furnishing Company

### CHARTS

Weber Costello Company

### CLEANERS—SUCTION

Super Service Co., The

### CLEANING COMPOUND

Continental Chemical Corporation

### CLEANING COMPOUND

Oakite Products, Inc.

### CLOCKS—PROGRAM

Permalium Products Co., The

### CLOCKS—PROGRAM

Hansen Manufacturing Company

### CLOCKS—PROGRAM

Landis Eng. & Mfg. Co.

### CLOCKS—PROGRAM

Standard Electric Time Co.

### CLOTH BLACKBOARDS

N. Y. Silicate Book Slate Co.

### CLOTH BLACKBOARDS

Weber Costello Company

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Wiese Laboratory Furniture Co.

### CORK TILE AND CORK CARPET

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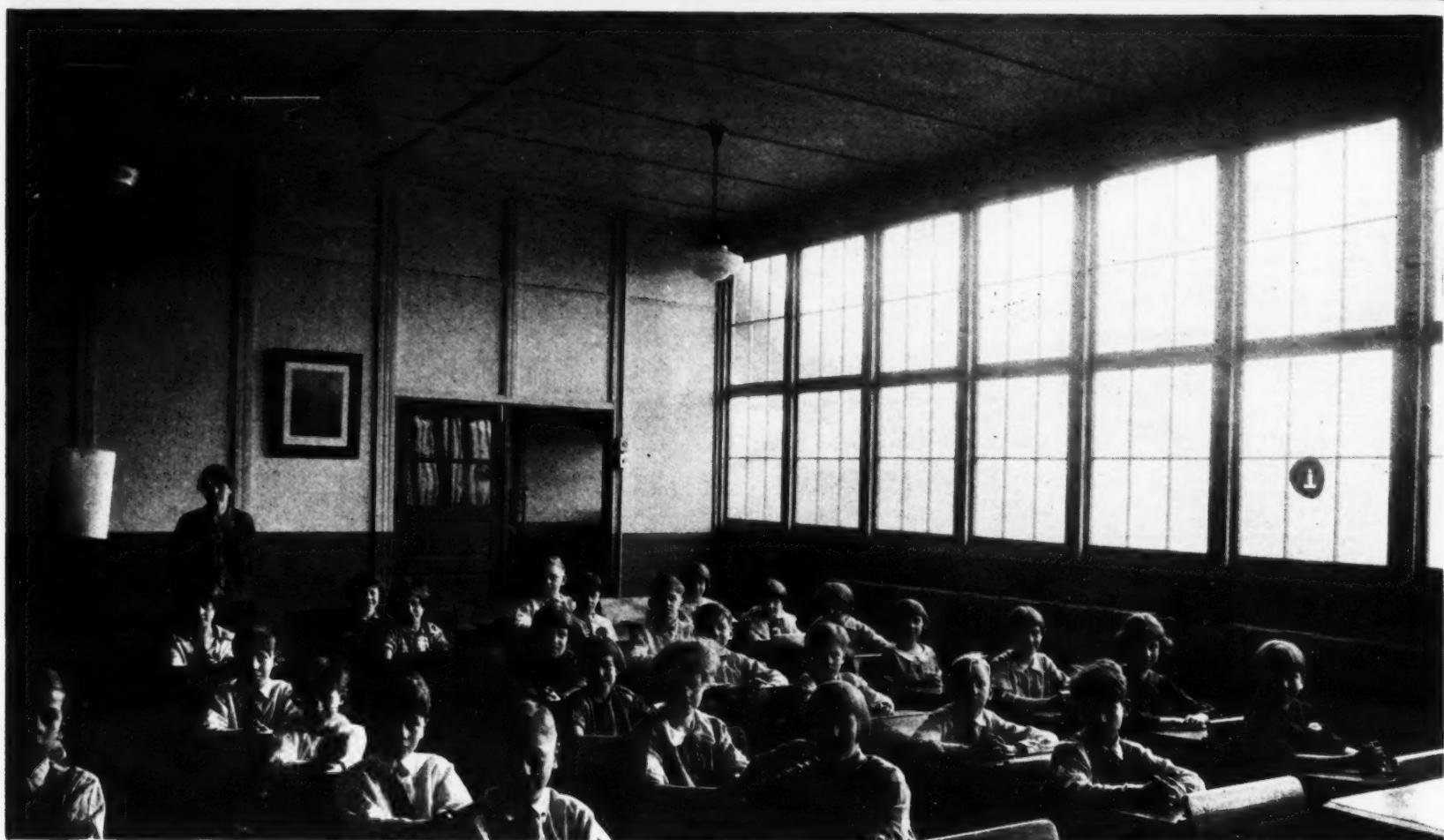
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Bonded Floors Co., Inc.

### CORK TILE AND CORK CARPET

Stedman Products Co.

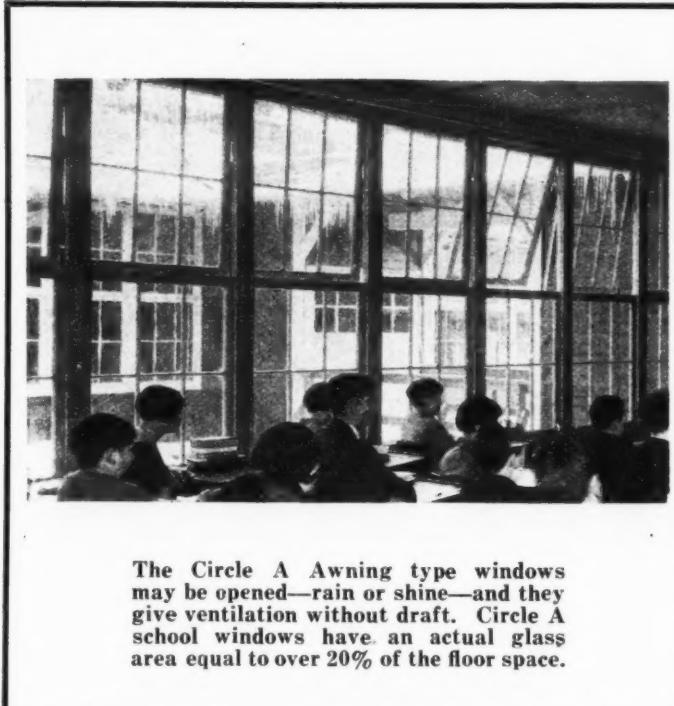
### CORK TILE AND



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**W**ITH Circle A Schools, comfortable teaching quarters can be provided immediately—at low cost. In eight days, four men can erect teaching space for 80 pupils. Circle A four-layer walls make these classrooms easier to heat in winter—cooler in summer—and quieter the year around. Pupils can do better work in such surroundings.

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The Circle A Awning type windows may be opened—rain or shine—and they give ventilation without draft. Circle A school windows have an actual glass area equal to over 20% of the floor space.

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Moreover, Circle A Schools are priced far, far below the usual school building—and their resale value is often more than 50% of the purchase price. Our book "Schools" shows how you can provide more comfortable teaching quarters, quickly and at an amazingly small cost. Send for a copy today.

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**CIRCLE A SCHOOLS**

# School Board Journal

## DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

### PROJECTION LANTERNS

Spencer Lens Co.  
Trans-Lux Daylight Picture  
Screen Corp.

### PROJECTORS

Bausch & Lomb Optical Co.  
Holmes Projector Company

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### RANGES

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### RECORD SYSTEMS

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### REFRIGERATION MACHINES

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### SAFETY STAIR TREADS

American Abrasive Metals Co.

### SASH OPERATING DEVICES

### STEEL

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### SASH, STEEL

Detroit Steel Products Company

Lupton's Sons Co., David

### SASH, VENTILATING

Detroit Steel Products Company

### SCALES

Continental Scale Works

### SCIENTIFIC APPARATUS

Knot Apparatus Co., L. E.

Rowles Co., E. W. A.

### SCIENTIFIC APPARATUS—Electr.

Standard Electric Time Company

### SCREENS—PICTURE

Trans-Lux Daylight Picture

Screen Corp.

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Continental Chemical Corporation

Finnell System, The

### SHOWERS

Clow & Sons, James B.

Hoffmann & Billings Mfg. Co.

### SIGNAL SYSTEMS

Hansen Manufacturing Company

Holtzer-Cabot Electric Company

### SKYLIGHTS—METAL

Lupton's Sons Co., David

Milwaukee Corrugating Co.

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N. Y. Silicate Book Slate Co.

Weber Costello Company

### SPRAY-PAINTING EQUIPMENT

DeVilbiss Mfg. Co., The

### STAFF LINERS

Weber Costello Company

### STAGE CURTAINS, EQUIPMENT

#### AND SCENERY

Acme Scenic Studios

Beck & Sons Co., The Wm.

Jackson Corp., A. P.

Kansas City Scenic Co.

Lee Lash Studios

Novelty Scenic Studios

Tiffin Scenic Studios

Twin City Scenic Company

Universal Scenic Studios, Inc.

Volland Scenic Studios, Inc.

### STAIR TREADS

Alberene Stone Company

American Abrasive Metals Co.

Norton Company

Safety Stair Tread Co., The

Stedman Products Co.

### STATIONERS

Blair Company, J. C.

### STEEL CASINGS—Doors, Windows

Milwaukee Corrugating Company

### STEEL JOISTS

Truscon Steel Company

### STEEL SASHES

Detroit Steel Products Company

Lupton's Sons Co., David

### STEEL STORAGE CABINETS

Durabil Steel Locker Co.

Durand Steel Locker Company

Medart Mfg. Co., Fred

### STEEL WINDOWS

Detroit Steel Products Company

Lupton's Sons Co., David

### STONEWARE SPECIALTIES

Zanesville Stoneware Co., The

### TABLES

Derby & Company, Inc., P.

Gunn Furniture Company

Mutschler Brothers Company

Rand Kardex Bureau

Rinehimer Bros. Mfg. Co.

### TALKING MACHINES

Victor Talking Machine Co.

### TEACHER AGENCIES

Natl. Assn. of Teacher Agencies

Teacher Agencies Directory

### TELEPHONE SYSTEMS

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Holtzer-Cabot Electric Company

Standard Electric Time Company

### TEMPERATURE REGULATION

Buffalo Forge Company

Johnson Service Company

### TOILET PAPER AND FIXTURES

A. P. W. Paper Company

National Paper Products Co.

Palmer Company, The  
TOWELS

A. P. W. Paper Company  
Bay West Paper Company  
Brown Company  
National Paper Products Co.

Palmer Co., The

### TOILET PARTITIONS

Clow & Sons, James B.  
Litterer Bros. Mfg. Company  
Mills Company, The  
Sanymetal Products Company  
Structural Slate Company  
Vitrolite Company  
Wain Mfg. Co., Henry

### TYPEWRITERS

Remington Typewriter Co.  
Smith, L. C. & Corona Type-writers, Inc.

Underwood Typewriter Company

### VACUUM CLEANING SYSTEMS

Allen & Billmyre Co., Inc.

Graybar Electric Company

Invincible Vac. Cleaner Mfg. Co.

Spencer Turbine Company, The

### VACUUM PUMPS

Nash Engineering Company

Young Pump Company

### VALVES—FITTINGS

Clow & Sons, James B.

### VENTILATING SYSTEMS

American Foundry & Furnace Co.

Buckeye Blower Company

Buffalo Forge Company

Dunham Company, C. A.

Milwaukee Corrugating Co.

Nelson Corp., The Herman

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Peerless Unit Vent. Co., Inc.  
Sturtevant Company, B. F.

Young Pump Company

### VARNISHES

Sterling Products Co., The

### VENTILATORS

Buffalo Forge Company

Globe Ventilator Company

Ideal Ventilator Company

Lupton's Sons Co., David

Buffalo Forge Company

Christiansen, C.

Columbia School Supply Co.

Sheldon & Company, E. H.

Wallace & Co., J. D.

Wiese Laboratory Furniture Co.

### WAISNCOTING

Stedman Products Co.

### WARDROBES

K-M Supply Company

Wilson Corp., Jas. G.

### WASTE PAPER BASKETS

National Vulcanized Fibre Co.

Penn Art Steel Works

### WATER COLORS

American Crayon Company

### WATER PURIFIERS

Clow & Sons, Jas. B. (R. U. V.)

### WEATHERSTRIPS

Athey Company, The

Chamberlin Metal Weatherstrip Co.

### WINDOWS—ADJUSTABLE

Austral Window Company

Detroit Steel Products Company

Lupton's Sons Co., David

Truscon Steel Company

Universal Window Company

Williams Pivot Sash Company

### WINDOW FIXTURES

Austral Window Company

Milwaukee Corrugating Co.

Peerless Unit Ventilation Co., Inc.

### VOCATIONAL EQUIPMENT

Columbia Mills, Inc.

Williams Pivot Sash Company

### WINDOW GUARDS

Austral Window Company

Badger Wire & Iron Works

Logan Co. (Formerly Dow Co.)

Stewart Iron Works Co., The

### WINDOWS—REVERSIBLE

Austral Window Company

Detroit Steel Products Company

Williams Pivot Sash Company

### WINDOW SHADE CLOTH

Columbia Mills, Inc.

Hartshorn Company, Stewart

### WINDOWS, STEEL

Detroit Steel Products Company

### WIRE GUARDS

Badger Wire & Iron Works

Cyclone Fence Co.

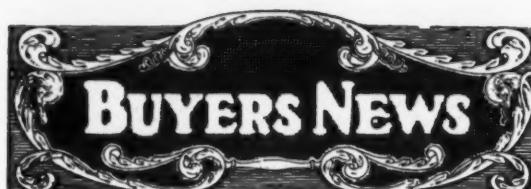
Logan Co. (Formerly Dow Co.)

Stewart Iron Works Co., The

### WOODWORKING MACHINERY

Wallace & Co., J. D.

## ADVERTISERS' REFERENCE INDEX



### Du Art Home-Economics Equipment

Leonard Peterson & Company, Chicago, Illinois, have issued a new bulletin describing their Du Art line of home-economics equipment, which is an addition to the equipment already manufactured by this firm.

The equipment includes supply tables and cases, stoves, and sinks for home-economics classes, and combines the features of durability, cleanliness, and beauty. All of the equipment is finished in the new Duco lacquer, which is the last word in sanitary cleanliness and is guaranteed not to crack or chip. The tables are made of selected materials and covered with fireproof tops that will not warp or split. The stoves are of steel with exteriors of dull-finished baked-on japan and the door panels are of glass or porcelain enamel.

The equipment is intended to meet the needs of educational institutions for modern equipment and insures years of serviceability in schools where it is installed.

### New Engine in Graham School Bus

Graham Brothers, manufacturers of school motor trucks, Detroit, Mich., have recently made an improvement in their motor-truck equipment with the installation of a new type engine. The new engine is a four-cylinder built by Dodge Brothers, which has advantages of speed, power, economy, and acceleration which the former engine did not possess.

The engine is fitted with a sturdy, heavy-duty transmission and a large single-plate clutch, both designed for truck service. The engine operates on less gasoline due to an improved vaporization system through a new intake and exhaust manifold and combustion chamber with sloped head. The large chrome-vanadium steel crankshaft, with an efficient two-unit starter-generator system, are essential features.

An inspection of the interior shows clean-cut design, strength, and accessibility of working parts. The engine has been commended as the greatest improvement which has been made in engines for motor trucks.

**Finnell System has Growth in School Business**  
The Finnell System Inc., which recently removed its plant to Elkhart, Indiana, has been obliged to seek larger and better manufacturing facilities due to the growth in the demand for modern floor-cleaning equipment. On June 1 the firm opened for business in its new home in the industrial center at Elkhart.

The Finnell System had its first beginning in Baltimore, Maryland, in 1906 and the growth of the company since that time is striking evidence that the pioneer work has been well done and that the public in general is becoming more "floor conscious."

At the present time the Finnell Company is known for its scrubbing and polishing machines, which range from the small unit for household use, to the large machine capable of cleaning large floor areas with great speed. The firm also manufactures auxiliary equipment, including mopping machines and mop trucks. Finola, a superior cleanser, powder, and Asesco solvent, a preparation for



BATTING IN THE BIG GAME.  
—John Cassell in New York World.

cleaning rubber tile, are also manufactured by the firm.

### How and Where to Use Oak Floors

The Oak Flooring Bureau of Chicago, Illinois, has issued a revised edition of its booklet entitled "How and Where to Use Oak Floors." The pamphlet is intended to offer suggestions about the handling, laying, finishing, and care of oak floors and the use of different grades for the purpose intended.

The booklet will be found valuable for the use of carpenters and floor layers. It gives grading rules for oak flooring, specifications for standard thicknesses, lengths, and widths, directions for estimating the amount of flooring required, and suggestions for handling, laying, and finishing. A final section gives suggestions for the care of floors, and the materials to be used.

### American Book Company Occupies New Building

The American Book Company has moved its corporation and New York division offices into its new building at 88 Lexington avenue, corner of East 26th Street, New York City. This is the third home that the company has had in New York since its organization in 1890. It was formerly located at 100 Washington Square where it has been since 1895.



NEW BUILDING OF THE AMERICAN BOOK COMPANY,  
NEW YORK, N. Y.

The new building is a modern, fireproof, seventeen-story structure, faced with Indiana limestone and having a copper roof. The architectural style is Italian Renaissance. The seven upper stories are occupied by the corporation and New York offices.

The entrance to the building has bronze doors set in ornamental frames and grilles. Both the entrance vestibule and the elevator lobby have walls of Formosa marble and an ornamental coffered ceiling. The portion serving the company exclusively is separated from the front by an attractive bronze screen, surmounted by a clock. The insignia of the company is incorporated on the elevator doors.

The building was erected from plans prepared by Necarsulmer and Lehlbach, architects, New York City, and the construction work was in charge of Messrs. Leddy and Moore, of New York City.

The present officers of the American Book Company are: Louis M. Dillman, president; A. V. Barnes, W. W. Hill, and L. B. Lee, vice-presidents; C. P. Batt, treasurer; W. W. Livengood, secretary; H. T. Ambrose, chairman of the board of directors. Mr. G. W. Benton is chief of the editorial department, and Mr. F. H. Blake is chief of the manufacturing department.

### New Type of Kewanee Radiator

The Kewanee Boiler Company, of Kewanee, Illinois, has issued a 23-page booklet, describing and illustrating the new slim-type Kewanee radiator. The slim-type radiator is the most recent and approved pattern of the firm and exemplifies to the highest degree the adaptation of heating equipment to the prevailing slender mode. A complete range of thirty sizes and types is available to fill every need for radiation.

The booklet includes a table of heating-surface requirements and specifications for roughing-in measurements.

### A CENTURY OF LEAD PENCILS

In the history of American industry it is a rare event indeed to find that a manufacturing concern has reached the century mark. Such a distinction primarily emphasizes a useful career. No enterprise can exist very long unless it is rendering a service. But, when a manufacturing plant has stood the storms and vicissitudes of a hundred years, it would go to prove that it was engaged in a laudable industry and that its affairs had been guided with efficiency and with a high sense of honor. The Dixon pencil holds the distinction as an article that has been in service a hundred years and the successive manufacturers of that pencil enjoy the prestige of a remarkable career.

Joseph Dixon started in 1827 at Salem, Massachusetts, to utilize graphite or black lead, which was secured in its raw state from a farm in New Hampshire. But, realizing that this supply of graphite did not assure these two essentials, quantity and quality, he arranged with sea captains who were sailing to the Far East to stop at Ceylon on their return trips and pick up a small tonnage of graphite for his use. Thus commenced the business that has grown to be a world leader in the production of articles from this so-called "black-lead" which has retained its own individuality, notwithstanding its relationships to mineral oil, hard coal, and asbestos.

This gave the beginning to the Dixon pencil and the foundation of what is now known as the Joseph Dixon Crucible Company. Crucibles were the initial idea, but the secondary thought that added pencils to the business has become a primary purpose. The fame of the Dixon pencil has now reached the distant corners of the earth. The people of the Far East never dreamed that the mineral they were sending overseas would ultimately come back to them encased in wood. Joseph Dixon himself never imagined that a small metal accessory carried in the pockets of people would be the chief means of spreading his fame throughout all civilized lands.

The death of Joseph Dixon in 1869 deprived the company of the living personality of its founder. But subsequent developments proved that he built wisely in creating a policy that entails the selection of executives for high positions from those who have grown up in the company. If one were to be asked to mention an outstanding point in the business philosophy of this corporation, it is likely that his thoughts would run first to this unchanging practice of building from within. So far as the forces of management are concerned, the organization is self-contained and self-operating. The lowliest employee, recognizing the existence of this policy, knows that he is automatically in line for promotion as the company expands and vacancies occur.

The second great epoch in the history of the Company was under the leadership of E. F. C. Young as president and John A. Walker as vice-president and treasurer. These men took a business with a wonderful foundation but comparatively small, and developed it into a nationally recognized industry. They were men of high integrity and organizing genius, and were outstanding characters in the business community in their day and generation. Mr. Walker passed away in 1907, and upon the death of Mr. Young in 1908 a new man took his place at the president's desk in the Dixon offices.

George T. Smith succeeded Mr. Young. It is said of the three men—Walker, Young and Smith—that they held to a fixed policy which meant the production of a utilitarian article and the honorable marketing of the same. It also meant a humane and cooperative policy as far as the workers of the plant were concerned. The same may be said for the vice-president of the company, Mr. J. H. Schermerhorn, who is thorough in method, democratic in his dealings, and bent upon rendering service to the millions who use the Dixon products.

It is gratifying to note a career that covers the span of a half century of successful operation. The finest compensation that can come to those identified with this remarkable industry must be found in the thought that it has rendered a useful service to mankind and that it is well manned and equipped to continue that service conscious of being a credit to American energy and industry and to American business integrity and honor.

### Sauce for the Gander

A Milwaukee specialist in stomach diseases writes a notoriously bad hand. Recently he wrote directions for the care of a patient and the nurse rather tactfully asked him to explain several words which were not clear to her.

"If you can't read, young lady," said the doctor with sarcasm, "I'd advise you to take a term at night school. They teach reading there."

"Then you'd better come with me, doctor," answered the nurse with equal sarcasm. "It may be they teach writing also."



Installation of L. B. wood bookstacks and library furniture in the Oak Park River Forest Township High School, of Oak Park, Illinois.

## Install L. B. Wood Bookstacks for Beauty and Permanency

**L**ibrary Bureau wood bookstacks add a charm of beauty to the school library. Rich in tone, dignified in appearance, built of selected season stock—scientifically milled, these bookstacks are both beautiful and permanent.

Prominent school architects have learned that they can conserve floor space and save money by specifying this distinctive, flexible type L. B. Bookstack instead of the stereotyped built-in millwork shelving formerly used in school libraries.

If you are remodeling your school—if you are making plans for a new school—you should draw upon the fifty-four year experience of Library Bureau in the library field to aid you in correctly designing your school library. Consultation privi-

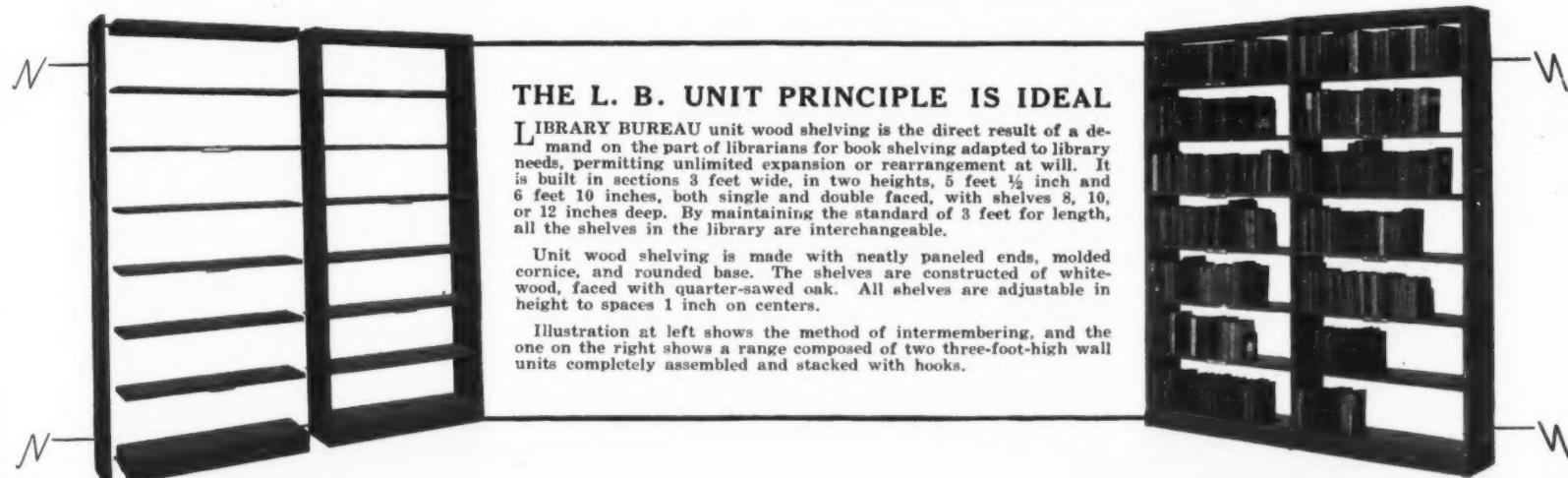
leges are offered to architects and librarians without obligation.

### L. B. EXPERTS ARE AT YOUR SERVICE!

A specially trained group of L. B. experts is at your service. These men will be glad to help you with your library problems. Call on them! A post card or a telephone call to any of these Library Bureau offices will bring the L. B. Man. Library Bureau offices are located in the following Rand Kardex Service branches: 118 Federal Street, Boston, Mass.; 451 Broadway, New York City; 214 W. Monroe Street, Chicago, Ill.; 759 South Los Angeles Street, Los Angeles, Calif.; 39 Second Street, San Francisco, Calif.; 447 Dexter-Horton Building, Seattle, Wash.; and 1903 Main Street, Dallas, Texas.

# Library Bureau

D I V I S I O N   O F   R E M I N G T O N   R A N D



### THE L. B. UNIT PRINCIPLE IS IDEAL

LIBRARY BUREAU unit wood shelving is the direct result of a demand on the part of librarians for book shelving adapted to library needs, permitting unlimited expansion or rearrangement at will. It is built in sections 3 feet wide, in two heights, 5 feet  $\frac{1}{2}$  inch and 6 feet 10 inches, both single and double faced, with shelves 8, 10, or 12 inches deep. By maintaining the standard of 3 feet for length, all the shelves in the library are interchangeable.

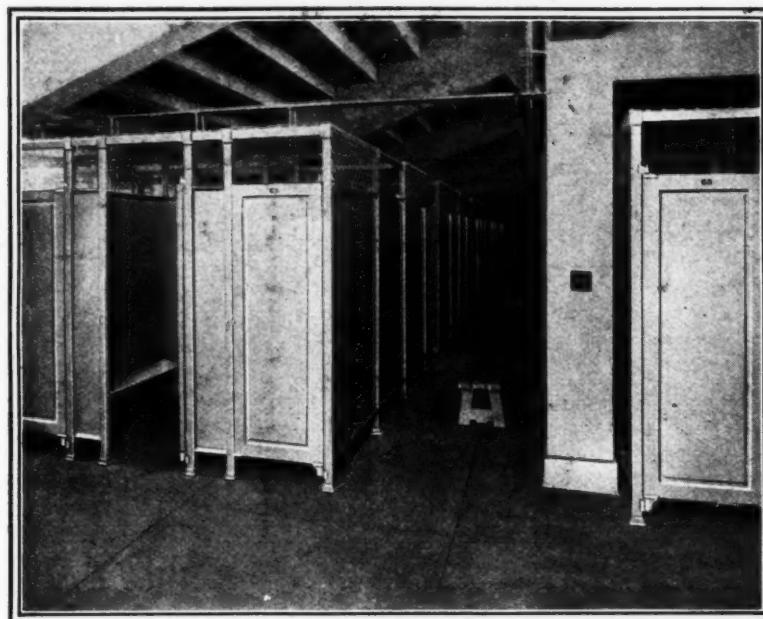
Unit wood shelving is made with neatly paneled ends, molded cornice, and rounded base. The shelves are constructed of white-wood, faced with quarter-sawed oak. All shelves are adjustable in height to spaces 1 inch on centers.

Illustration at left shows the method of intermembering, and the one on the right shows a range composed of two three-foot-high wall units completely assembled and stacked with hooks.

**WEISTEEL**  
TRADE MARK  
REGISTERED

Glendale High School  
Glendale, California

Austin & Ashley,  
Architects



## Easy to Order and Easy to Install

Definite superiorities in construction materials and design of Weisteel Toilet, Shower and Dressing Room Compartments, has led to their increasing use in public schools.

To these superiorities are added ease of ordering and ease of installation, through the Weisteel Cooperative Plan. Just send a simple sketch of your space and facilities and we will forward complete recommendations and quotations, to fit your particular requirements.

The compartments are shipped with a simple

diagram and complete erection instructions, indexed to numbered compartment sections. No fitting, cutting or drilling is necessary when erecting Weisteel and it is virtually impossible to make mistakes. Specialized labor unnecessary.

In replacing old installations, this Plan saves you much time, cost and worry. It assures you that the completed installation will be fully satisfactory. For new building installations, the Cooperative Plan is equally valuable in working with the architect.

### Weisteel Dominant Features:

1. 16 gauge, Keystone copper-bearing, rust-resisting, furniture steel.
2. Weisteel special-design universal hinges, simple, fool-proof, durable.
3. Weisteel doors are electrically welded into one solid unit. Foot castings are brass. Brass latch and pull are nickel plated.
4. All joints are closed and sealed. No ledges or crevices to catch or hold dirt.
5. Pleasing yet practical designs harmonize with other quality equipment.
6. Weisteel Cooperative Plan saves you time and cost.

**WEISTEEL**  
TRADE MARK REGISTERED  
**COMPARTMENTS**

Toilet and  
Shower  
Compartments

HENRY WEIS MANUFACTURING CO., INC.

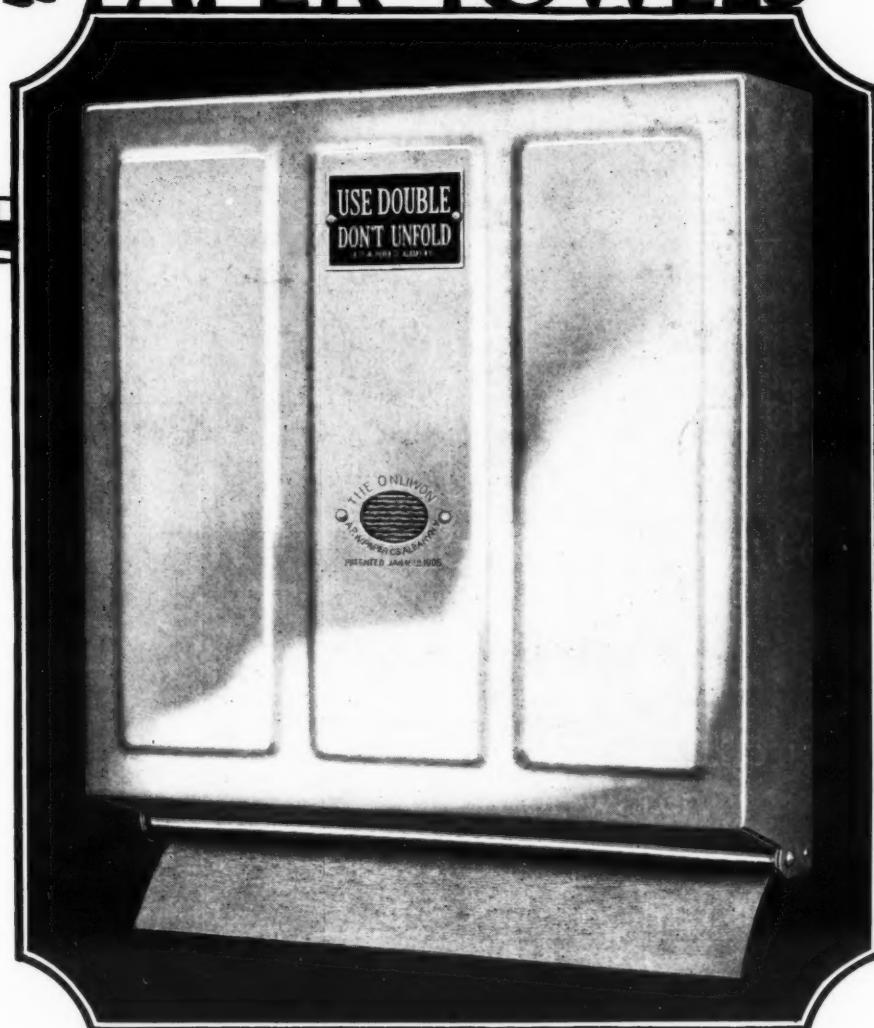
Elkhart, Indiana (Formerly Atchison, Kansas)

Branch Offices:  
NEW YORK CHICAGO LOS ANGELES  
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Representatives in all Principal Cities

Established 1876

Dressing Room  
Partitions  
Hospital  
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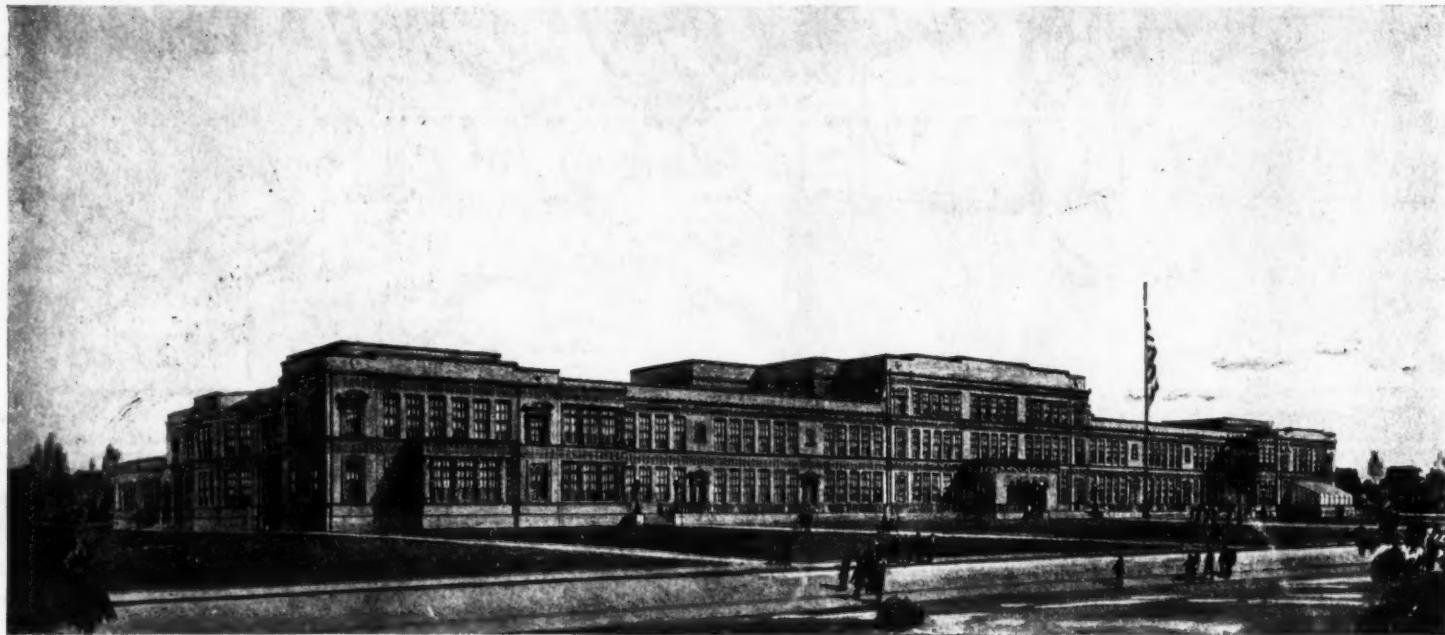
## Keep Washroom Maintenance Down

Install Onliwon Paper Towel Service — and keep washroom maintenance down.

Onliwon Paper Towel Cabinets serve one towel at a time — folded double so that wet hands won't tear through. One towel dries hands and face quickly and thoroughly. That's where Onliwon economy comes in.

Onliwon Cabinets are good-looking, trouble-proof, and easy to refill. They require a minimum of attention, for you can see when they need refills.

A. P. W. PAPER CO.  
ALBANY, N. Y.



BURTON INTERMEDIATE HIGH SCHOOL, GRAND RAPIDS, MICHIGAN, as described in this issue of the Journal  
H. H. TURNER and V. E. THEBAUD, Architects

## A Twelve Years' Unbroken Record

For twelve years Mr. H. H. Turner has been specifying Austral Windows exclusively for school buildings—decisive evidence that the Austral Window has always proved satisfactory to himself and his clients.

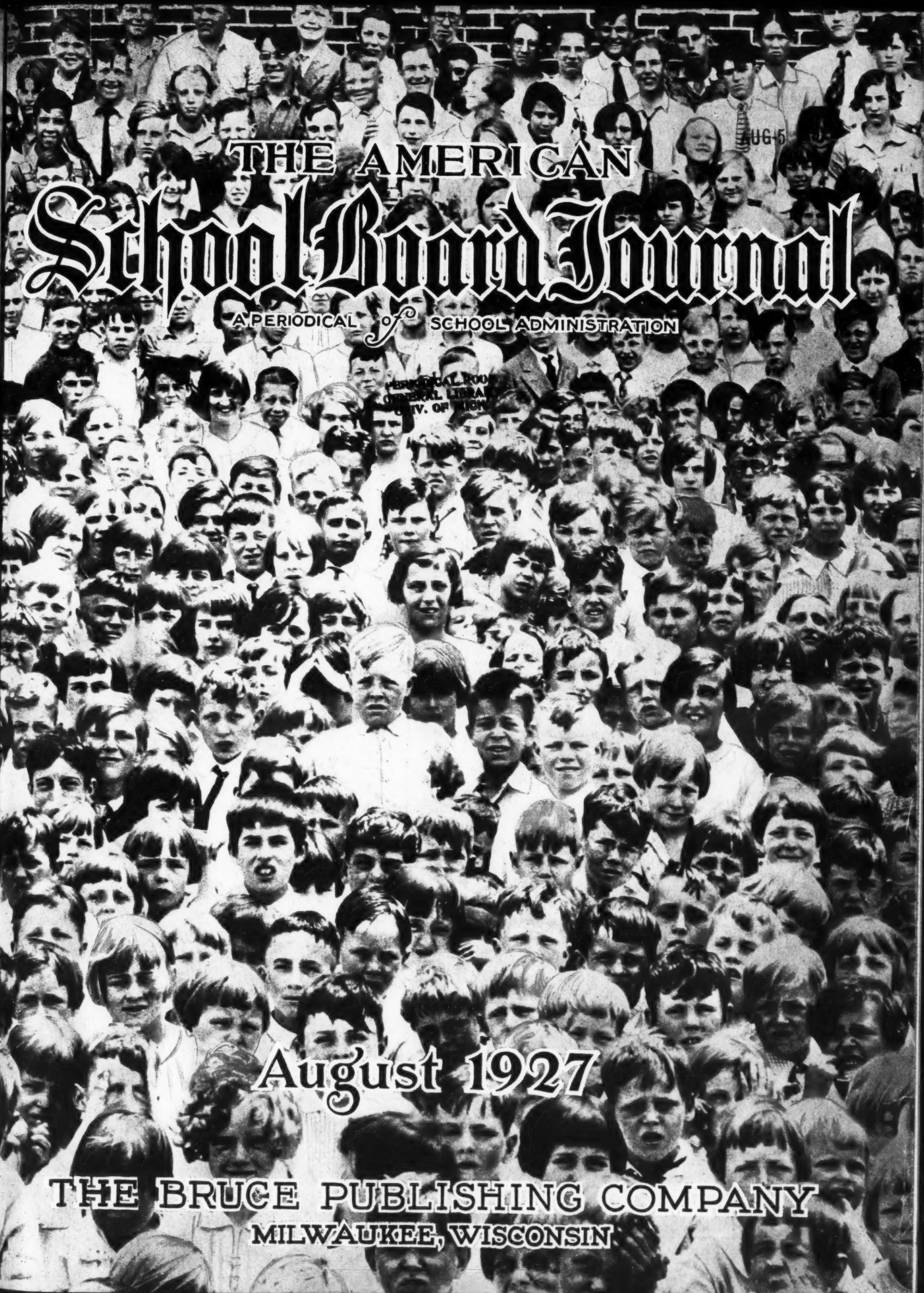
Now Turner and Thebaud specify Austral Windows for the Burton Intermediate High School of Grand Rapids—the "Furniture City." For the most modern of schools they specify the most up-to-date of windows.

Austral Windows in this school [numbering nearly 1000] cost no more than ordinary windows to install, but they make cleaning easier and secure control of ventilation and light in all sorts of weather, without draft and without the noise of flapping shades.

*The New Austral Book on School Ventilation will be sent on request.*

### STANDARD SCHOOL EQUIPMENT

• 101 •  
PARKAVE AUSTRAL WINDOW CO. NEW YORK  
• CITY •



THE AMERICAN

# SCHOOL BOARD JOURNAL

A PERIODICAL OF SCHOOL ADMINISTRATION

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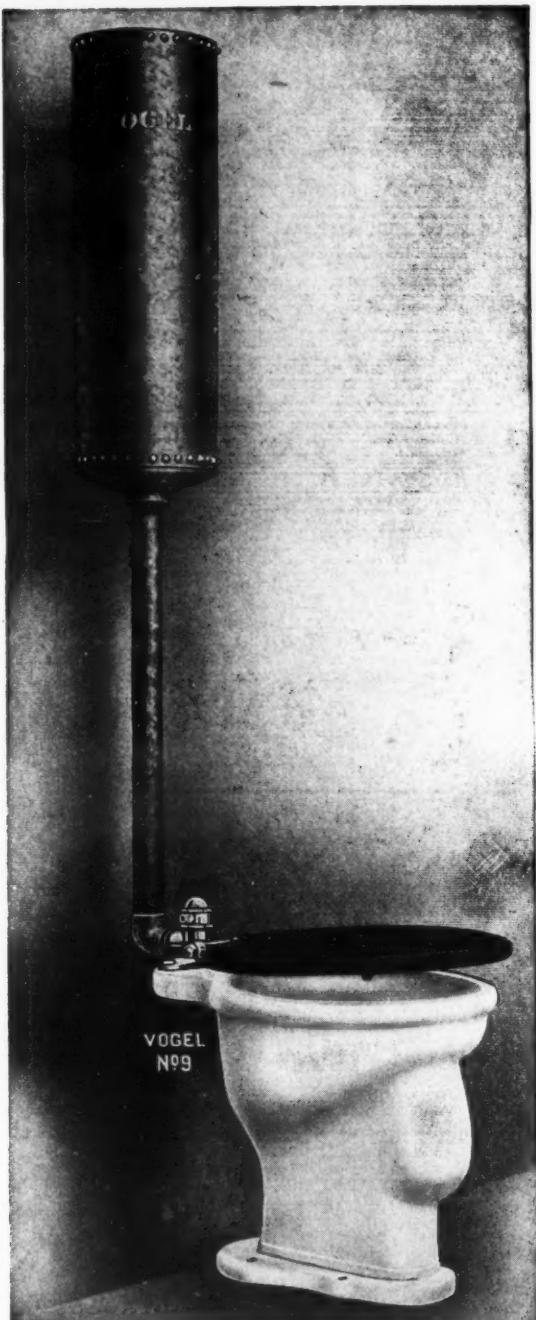
August 1927

THE BRUCE PUBLISHING COMPANY  
MILWAUKEE, WISCONSIN

# VOGEL

PATENTED

## Number 9 Automatic School Water Closet



This closet is made to stand the rough usage of the school water closet.

Economical in the use of water.

Seldom requires repairs.

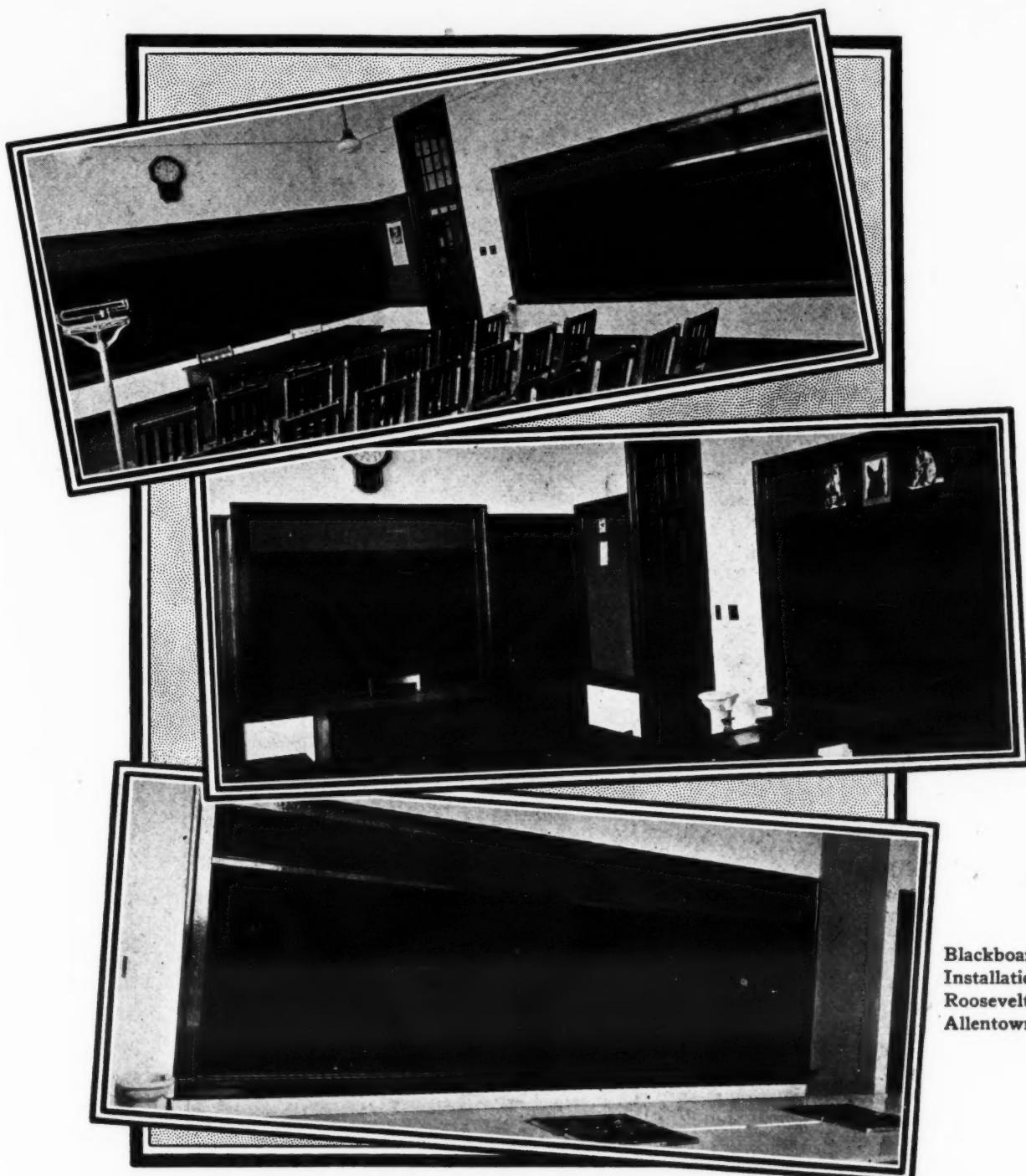
Easy of access when repairs are necessary.

The simplest and most durable automatic water closet.

Many Thousands in use.

*Sold by Wholesalers of Plumbing Supplies Everywhere*

**JOSEPH A. VOGEL CO.**  
Wilmington, Delaware      St. Louis, Missouri



Blackboard  
Installations—  
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Allentown, Pa.

## THERE IS NO WEAR-OUT TO NATURAL SLATE BLACKBOARDS

Despite the ravages of hard wear, Natural Slate Blackboards are always like new—Sanitary—Dustless—Fireproof—Easy-To-Write-On—Easy-To-Clean, and Economical.

They are the shortest cut to conserving taxpayers' money—the easiest way of bringing joy to the teachers' tasks—and better results to pupils' endeavors.

Natural Slate Blackboards are everlasting—replacement is never necessary!

**NATURAL SLATE BLACKBOARD COMPANY—108 ROBINSON AVE., PEN ARGYL, PA.**

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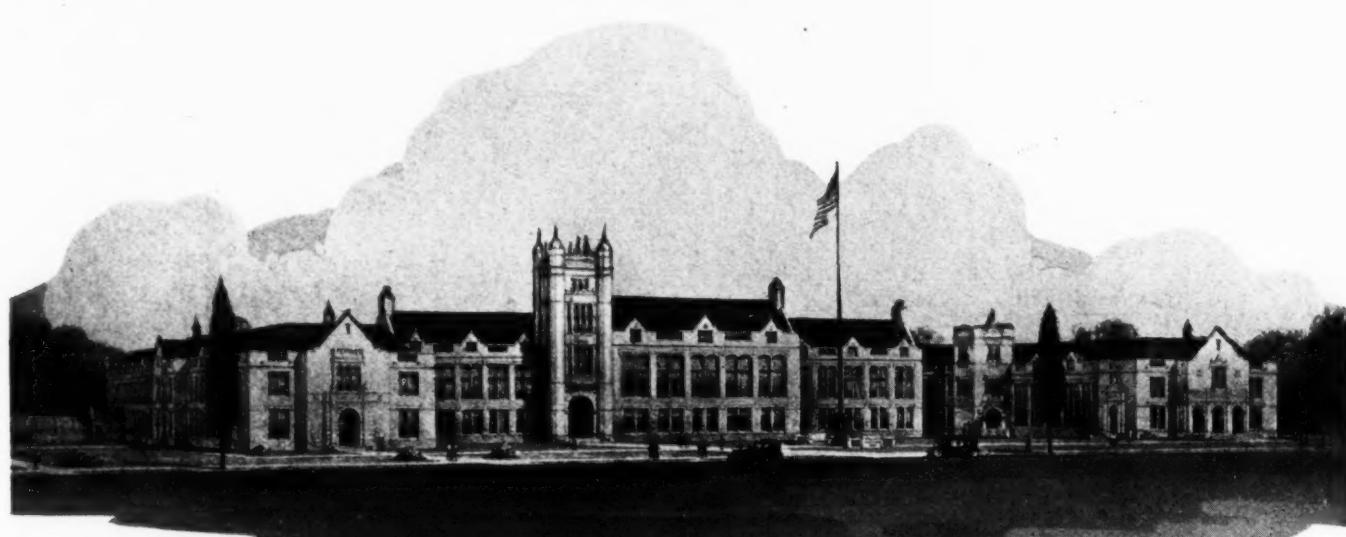
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# NATURAL SLATE BLACKBOARDS



**DUAL . . . .  
THERMOSTAT . . . .  
CONTROL . . . .**

OPERATION of the Johnson Dual Clock, or a wall switch by the engineer of the building, automatically reduces the heat to a lower level in all rooms vacated for the day, but leaves the heat on at normal in those rooms to be used at night. And next morning the same clock, or switch, turns on the heat to normal in all the rooms of the building for the day. An invaluable convenience; and effecting a fuel saving as much as 40 per cent per year, fuel otherwise wasted.

Write Now For Complete Details Regarding Johnson Dual Thermostat Heat Control For YOUR Schools



VanLeyen, Schilling  
and Keough,  
*Architects and  
Engineers*  
Peter Eddy,  
*Heating Contractor*

**Fordson High School**

**Includes JOHNSON DUAL  
THERMOSTAT HEAT CONTROL**

Here, indeed, Johnson Heat Control is recommended for your schools. 214 Dual Thermostats will operate 410 radiators; 7 Dual Switches will control different portions of the building for night-time temperatures as required. 31 three-way switches will control 138 dampers, and the fresh air and return air dampers will be automatically kept at 40 degrees to prevent freezing of coils. The coils will have 120 Sylphon valves automatically controlled by 34 Dual Thermostats.

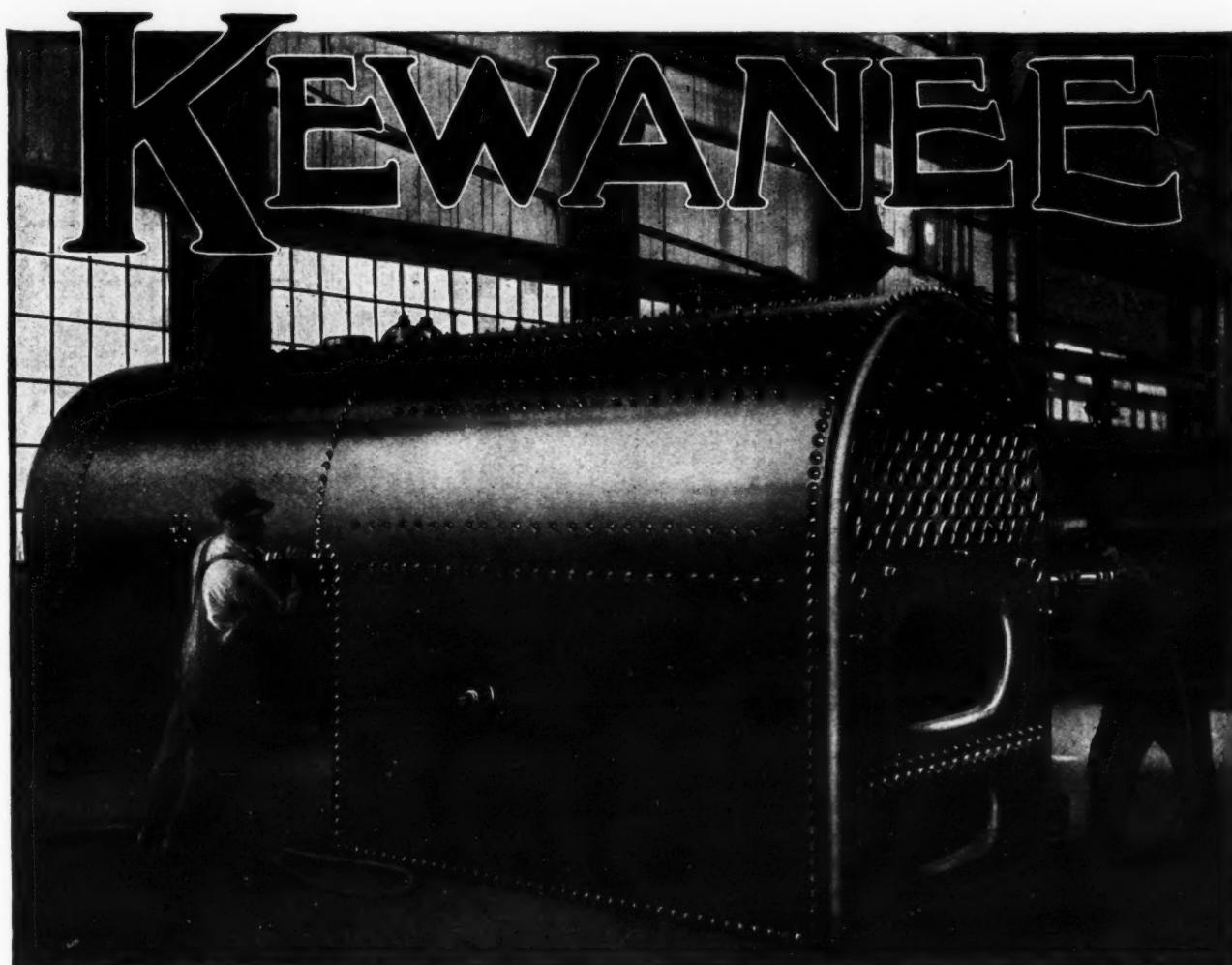
Approximately 31,000 feet of air lines will be run in this building. Vacuum System of heating will be used in combination with a ventilation system—and Johnson Dual Thermostat Control will effect a fuel saving of 25 to 40 per cent per year.

An installation that indeed recommends Johnson Heat Control for your schools.

**JOHNSON SERVICE COMPANY**  
Main Office and Factory, MILWAUKEE, WIS.

*Automatic Temperature Regulation Since 1885  
Branches in All Principal Cities of  
United States and Canada*





*Hand Finishing a Standard Twenty-Ton Steel-Riveted Boiler*

## Why STEEL-RIVETED?

**STEEL** is strength!—Steel Boiler Plate has Ductility! As well as Strength!  
It is wrought and rolled in the making, not just melted and cast.

**RIVETS** have that same Ductile Strength!—They are Steel,  
hammer-forged.

In STEEL-RIVETED the two component parts—*Steel Plus Rivets*—have  
the same characteristics. So they pull together when put to work.

One advantage in the manufacture of RIVETED SEAMS is that the texture of steel is actually improved by the hydraulic pressure and by hammer blows.

Another advantage: RIVETS only need to be heated cherry red so there's *no fusion* and *no burning* of the steel; it does *not* get brittle. Neither are there any uncertain locked-up stresses from shrinkage, so the joint does not have to be annealed afterwards.

In fact, we KNOW a riveted joint is sound and can prove it by tests—by exact computation—by inspection. We KNOW from our 40 years practical experience that Steel-Riveted stands the gaff from blazing flames in the firebox. It holds up against shock pressures and vibration without experiencing fatigue or fracture. Endless trials in extensive fields of usage only serve to emphasize Steel-Riveted endurance.

*No laboratory material or experimental process of jointure can supplant STEEL-RIVETED for consistent RESILIENT STRENGTH which may be determined beforehand by calculation and verified by inspection. It makes the best kind of a job, worthy of its first-class workmanship.*

The Kewanee Firebox Heating Boiler is Steel-Riveted. Whether it weighs one or twenty tons, each boiler is custom finished and looks the part.



### KEWANEE BOILER COMPANY

KEWANEE, ILLINOIS

Branches in Forty Principal Cities

*Steel Heating Boilers, Water Heaters, Garbage Burners, Tanks and Radiators*



The swivel tool enables the operator to reach under desks and chairs and into seemingly inaccessible corners.

### **Spencer Advantages**

1. Always ready for use.
2. Can be operated by anyone of ordinary intelligence.
3. Possesses an easy and perfect system of control.
4. Tools are few, simple and strong—all wearing surfaces easily, quickly and inexpensively replaced.
5. No valves, belts or complicated parts requiring constant adjustment.
6. Consumes power only, beyond the idle load, directly in proportion to the amount of work being done.
7. Has comparatively few wearing parts and consequently low maintenance cost.

## **SPENCER** CENTRAL CLEANING SYSTEMS

The recommendations of our Engineering Department may be obtained on any cleaning problem without cost or obligation.

Spencer Central Cleaning Systems represent the highest development in vacuum cleaning apparatus within the last decade. They include features of design, construction and operation found in no other system of vacuum cleaning.

And it is for this reason that over 1,200 Spencer Vacuum Cleaning Systems are in use in schools today—each rendering an incomparable degree of satisfactory service, which with the passing of each year, only tends to more firmly establish Spencer prestige and reliability.

School Officials, Architects and Engineers throughout the entire country unqualifiedly indorse and recommend the Spencer System as the ideal vacuum cleaning equipment for school installation.

*Write for list of school installations and complete data regarding Spencer equipment.*

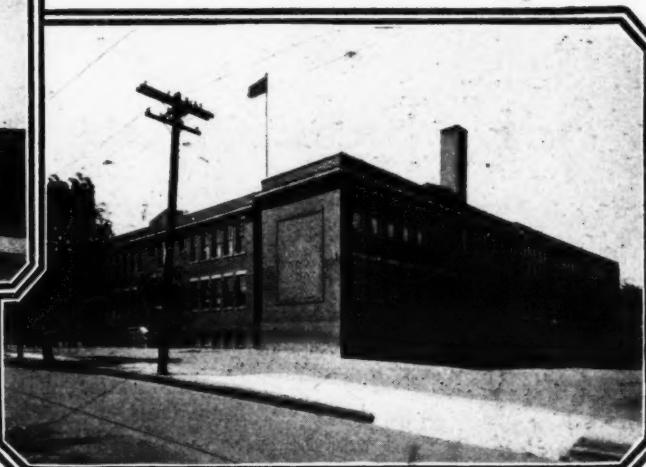


**The Spencer Turbine Company**  
Hartford Connecticut

# —and now in Birmingham Alabama



Moore School, Birmingham, Ala. Wm. B. Ittner, Inc., St. Louis, Mo., and Brooke B. Burnham, Birmingham, Ala., Associate Architects. Birmingham Equipment Co., Heating Contractors. One No. 418, 6700 sq. ft. Pacific Down Draft Smokeless Boiler installed.



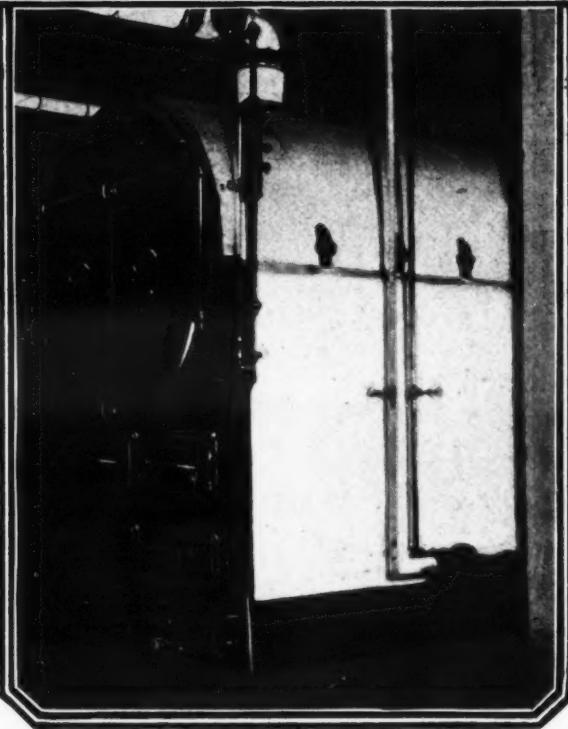
Pratt City High School, Birmingham, Ala. Wm. B. Ittner, Inc., St. Louis, Mo., and Miller and Martin, Birmingham, Ala., Associate Architects. Birmingham Equipment Co., Heating Contractors. One No. 429, 29000 sq. ft. Pacific Down Draft Smokeless Boiler installed.

## Pacific Heated Schools

PACIFIC STEEL HEATING BOILERS are equally at home on sub-zero days in Minnesota or under the intermittent heating conditions of the Southland. For they combine tremendous reserve capacity with unusual flexibility of operation. Wherever they are used, ordinary operators under every-day conditions obtain remarkable results in fuel economy. These savings follow logically from Pacific principles of design which provide ample combustion space and exceptionally long fire travel.

Built of steel, electric welded, Pacific Boilers are dependable, free from leaks and service troubles. Used in a steadily growing proportion of the nation's better school buildings.

*Write for list of school installations.*



Boiler Room, Pratt City High School, Birmingham, Ala. No. 429 Pacific Down Draft Smokeless Boiler.

# PACIFIC

STEEL HEATING BOILERS

FACTORIES: WAUKEGAN, ILL., BRISTOL, PA.

# Von Duprin

## Self-Releasing Fire Exit Latches

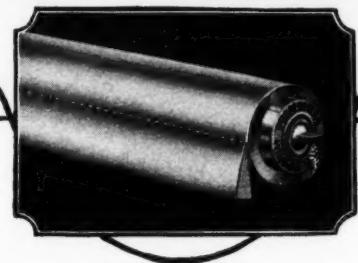
*Sweets, Pages B1876-1879.*

*AIA 27c5*

No Von Duprin latch  
has ever failed to operate  
in an emergency.

VONNEGUT  
HARDWARE CO.  
Indianapolis, Ind.  
**1852 Our 75<sup>th</sup> Anniversary 1927**





# Window shade rollers that keep replacement costs down!

THE superior performance and proved durability of *Columbia* Window Shade Rollers may be traced to three unique features.

1. The spring inside a *Columbia* Roller is 30 to 40% stronger than the spring of an ordinary roller. This means greater durability and greater lifting power—a double economy.

2. The nickel-plated ferrules are

brass instead of the usual steel. This renders them rust-proof—trouble-proof. Still another reason why *Columbia* Rollers rarely get out of order—and last far longer than ordinary rollers.

3. The bearings are self-lubricating. This insures smooth, easy action—and helps prolong the life of the roller.

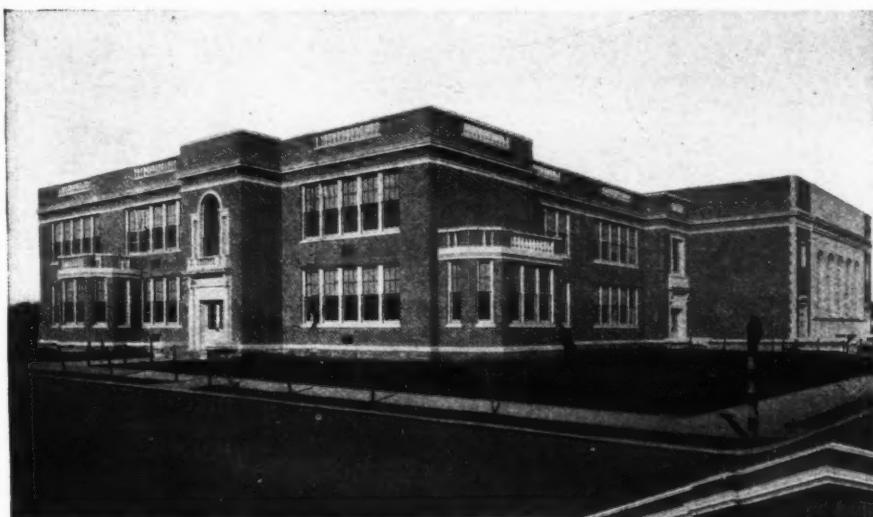
These three special features would

perhaps be of no great importance if you were specifying window shade rollers for one, two or half a dozen windows. But in a large building—a skyscraper, hotel, school or hospital where windows can be counted by hundreds—the *Columbia* Roller's margin of superiority will quickly make itself felt in more satisfactory service and lowered replacement costs.

*Columbia* Window Shades are on a par with *Columbia* Rollers—made for hard wear and rough treatment. These shades come in a wide selection of beautiful toned-colors that admit plenty of soft, mellow light but eliminate all harsh glare.

We would like to send you a specimen roller—together with samples of *Columbia* Shade Cloth and a copy of the "Standard Specifications for Window Shades." Just use the coupon below.

*Abernathy Grammar School, Portland, Oregon. George H. Jones, Architect. Columbia Damasko Shades and Columbia Wood Rollers*



*Beaumont School, Portland, Oregon. George H. Jones, Architect. Columbia Damasko Shades and Columbia Wood Rollers*



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Baltimore	Boston	Chicago	Cincinnati	Cleveland	Detroit	Pittsburgh
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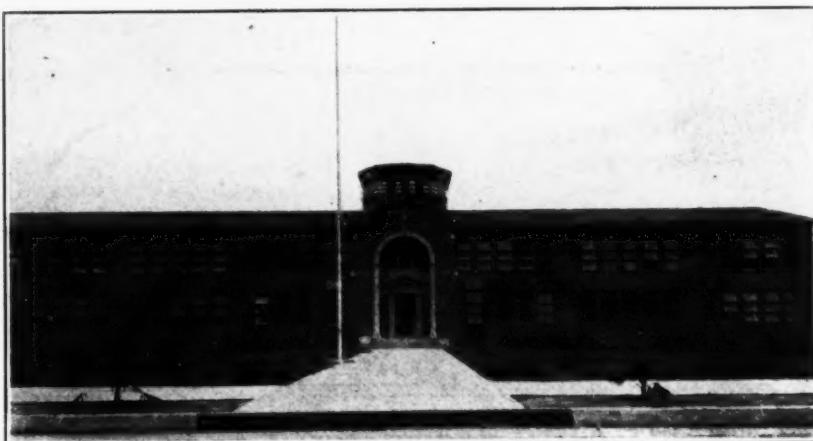
#### To save you time

Insure shade satisfaction by using the "Standard Specification for Window Shades," which we'll send on request. This covers every point which should be included in your specification. A specimen roller and samples of *Columbia* Shade Cloth are sent with specification. Mail coupon to The *Columbia* Mills, Inc., 225 Fifth Ave., New York.

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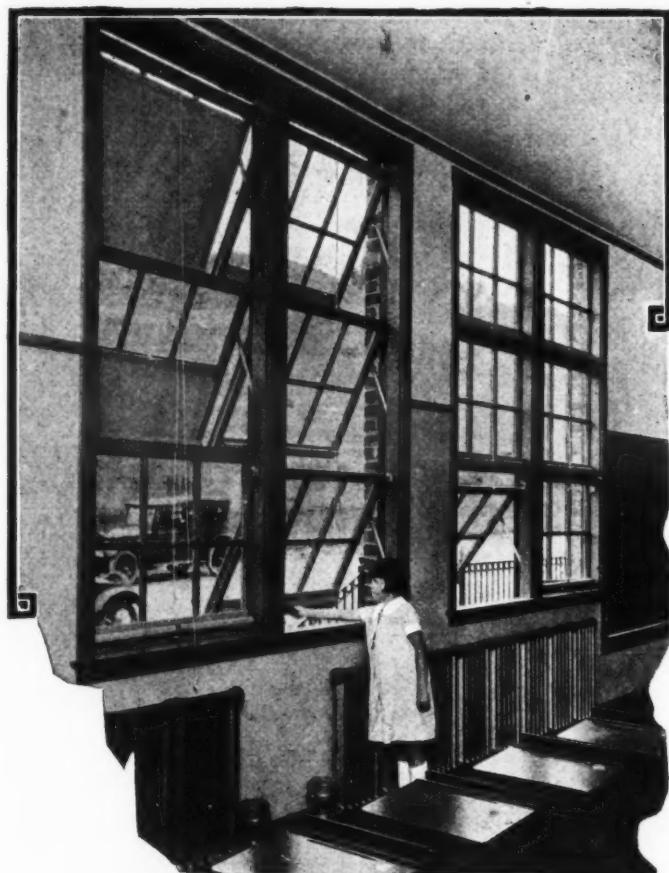
Address.....

S-8-27



ELEANOR J. TOLL SCHOOL  
GLENDALE, CALIFORNIA  
Alfred F. Priest, Architect, Los Angeles, Cal.

## Awning Type Windows Excel for Schools



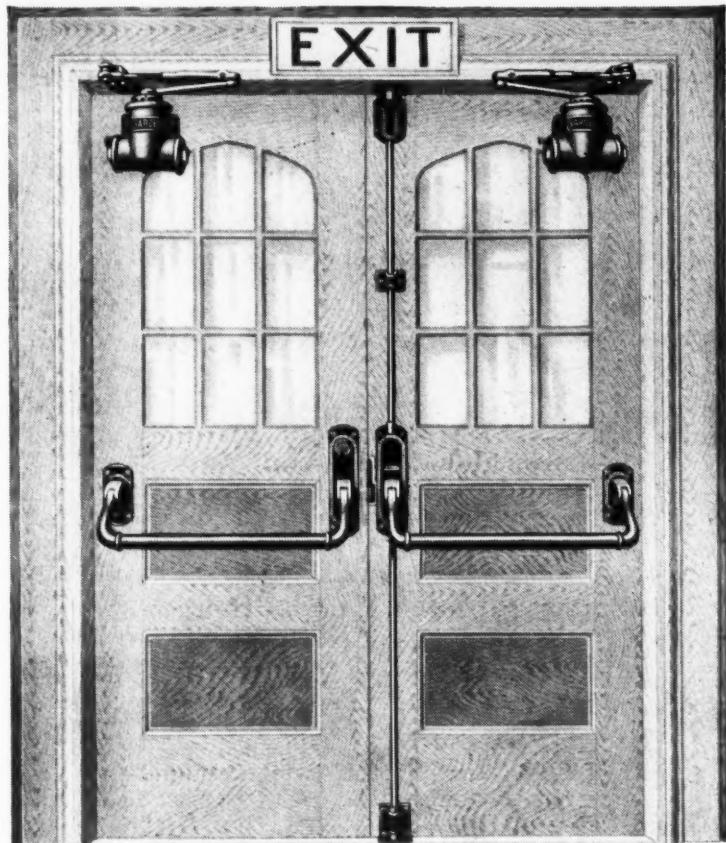
### DONOVAN UNIVERSAL WINDOWS AWNING TYPE

*Complete Information Sent on Request*

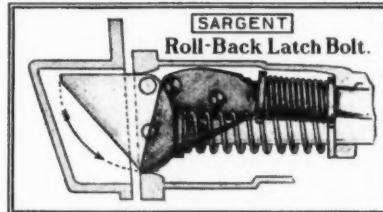
UNIVERSAL WINDOW COMPANY

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**A new fire-exit latch bolt  
that can't be jammed**



*Not even the pressure of a panic-driven crowd  
can make the Sargent roll-back latch stick*



School officials, who are responsible for the protection of the lives of the pupils and are anxious to make proper provision for quick exit in case of fire or panic will be interested in this new development which has become the standard Roll-Back action for

**SARGENT**

Fire Exit Door Bolts.

The improved action is shown by the detailed drawing. The Cross Bar does not withdraw the bolts, but releases the deadlocking mechanism, allowing the bolts to be rolled back into the case of the lock as the doors are pushed open.

#### Security.

The Latches provide complete security and prevent entrance from the outside of the building when the school is not in session, while they can be arranged to permit entrance during school hours if desired.

#### Quick Exit At All Times.

is provided and in case of necessity the doors can be instantly opened by slight pressure on the handle Bars at any point.

#### Door Closers

close the doors, during their day by day use, quickly and quietly, the application shown in the illustration with the Sargent special foot (No. 35) being particularly desirable.

Pamphlet illustrating and describing Fire Exit Door Bolts will be mailed upon request.

*Sargent Fire Exit Door Bolts, Locks and Hardware  
are sold by representative dealers in all cities.*

**SARGENT & COMPANY**

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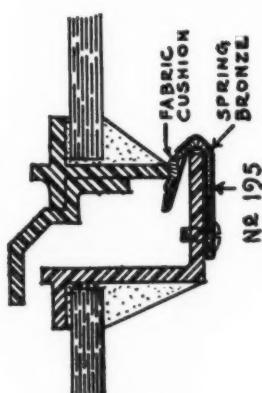
Leaky windows are the cause of a building's greatest "heat losses". Most of this waste can be prevented with



For wood sash. The channel is inserted in the edge of the sash and the rail nailed to the jamb.

The channel and rail are of imperishable zinc. They will not rust. The cloth is guaranteed to be rot-proof, water-proof, and moth-proof. It is so "crimped in" that it can't pull out.

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The same principle of cloth to metal contact is employed for steel sash (either rolled or hollow).

Leading makers of steel sash recommend Athey as the best weatherstrip for use with their product.

**Athey** Cloth Lined

## Metal Weatherstrip

Every test ever made proves that leaky windows are the cause of a building's greatest heat waste—the air leakage, during a 15 mile wind, running as high as 155 cubic feet of air per hour, per foot of crack, in windows not weatherstripped.

So, it isn't a question of whether to use weatherstrip or not—it's merely a question of what kind of weatherstrip. Any good weatherstrip will save enough coal in a year or two to pay its entire cost. And this saving is even greater when Athey cloth-lined metal weatherstrip is used—for Athey is unquestionably the most efficient made.

### Athey patented cloth-to-metal contact makes an air-tight "seal"

Athey cloth-lined metal weatherstrip is entirely different from any other. Instead of the usual rigid metal-to-metal contact Athey uses a cloth to metal contact—*sufficiently tight to shut out all drafts and dust, without making windows stick.*

Even when the sash is old and loose the efficiency of Athey strip is not lessened. For the cloth to metal contact is sufficiently resilient to compensate for such looseness.

*Let us give you some facts of actual coal savings due to the installation of Athey cloth-lined weatherstrip.*

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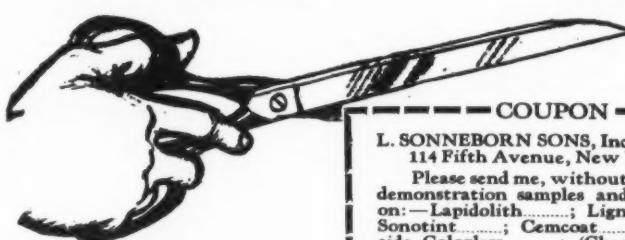
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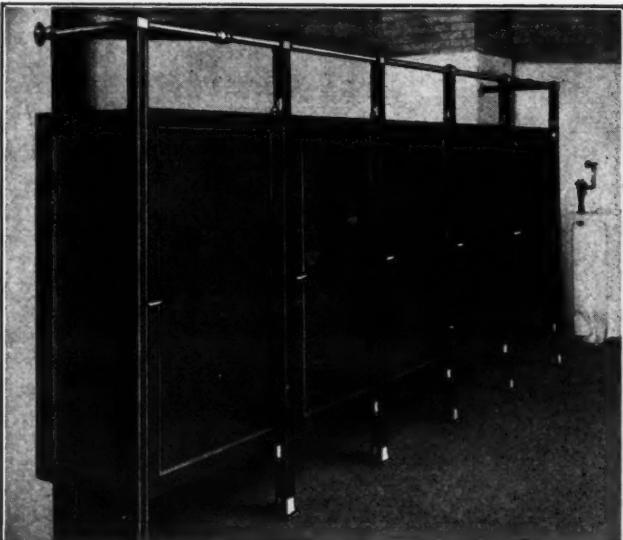
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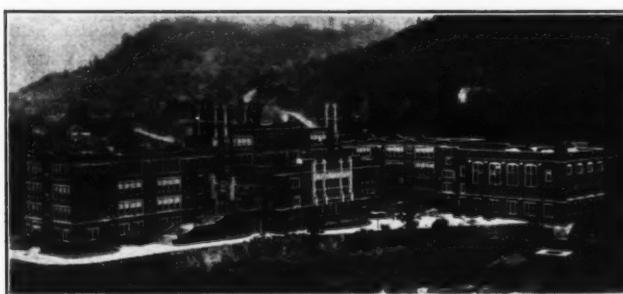
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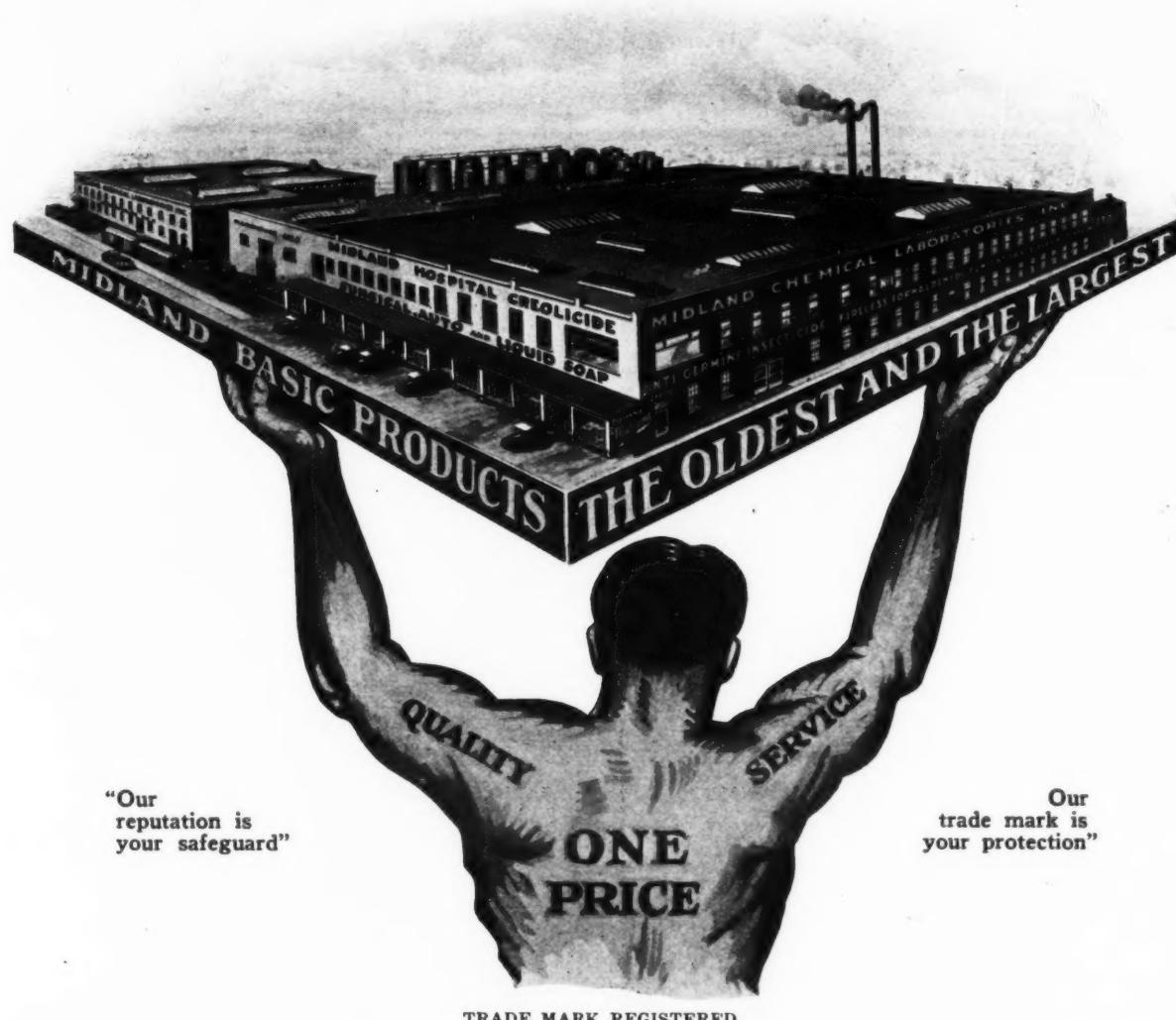
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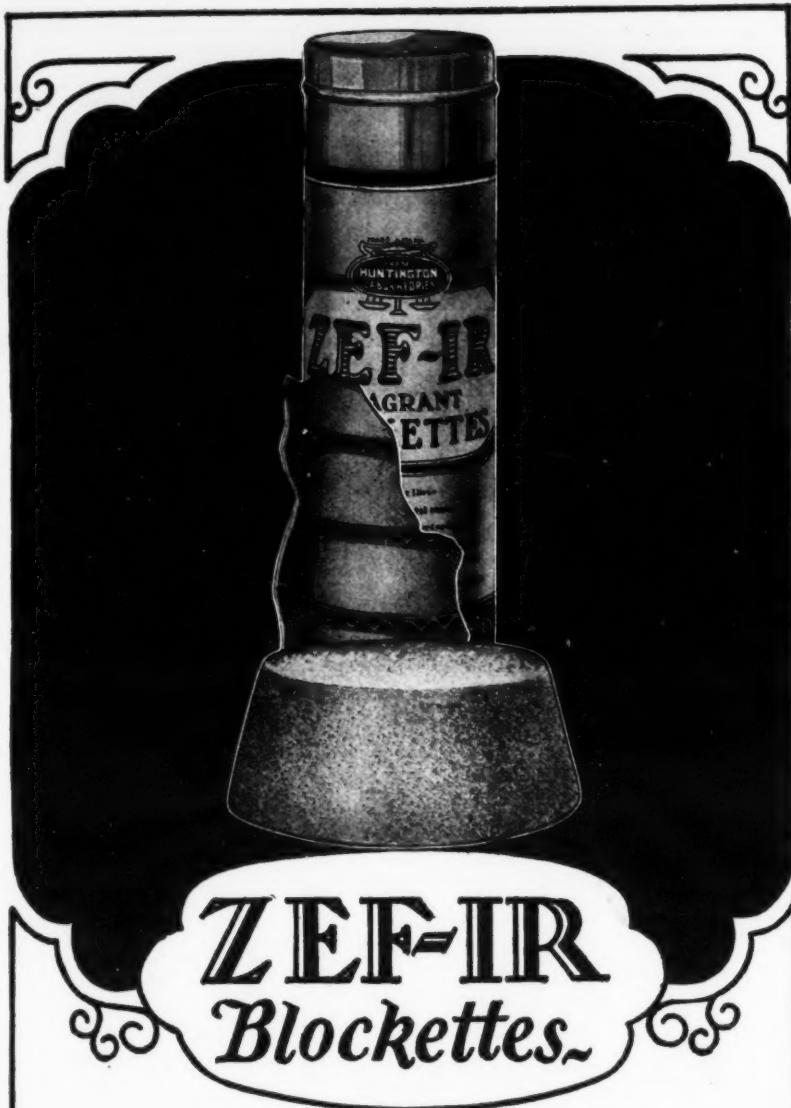
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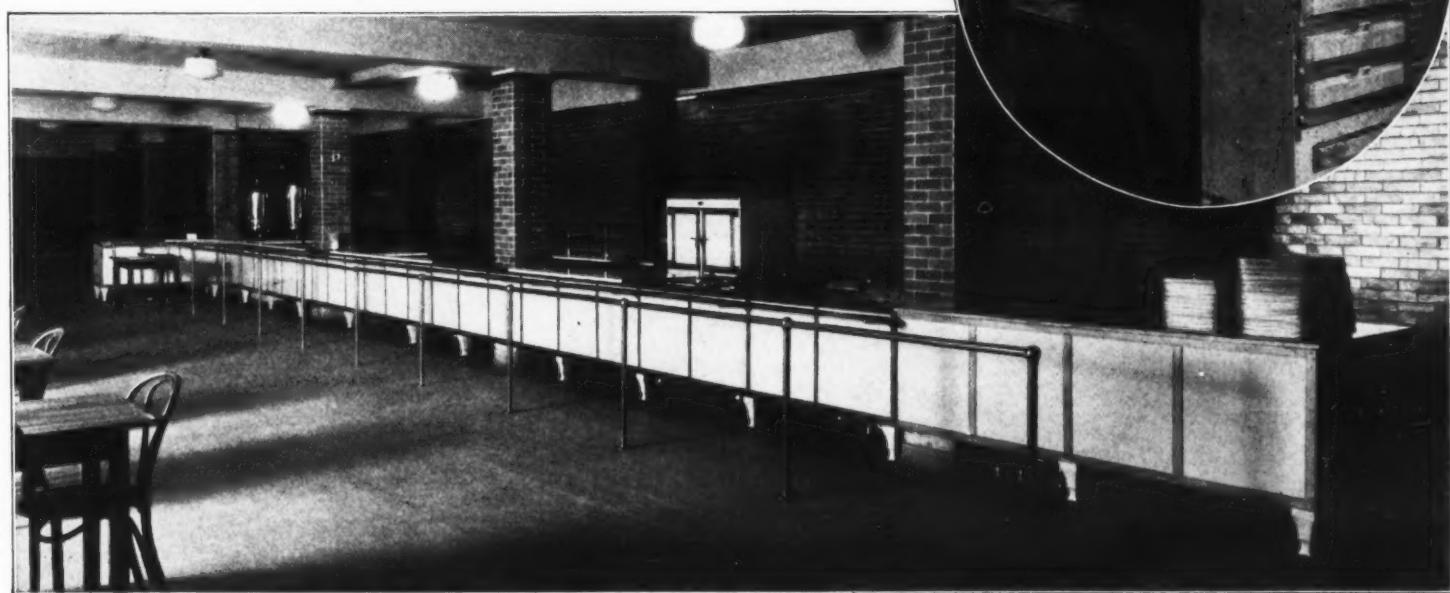
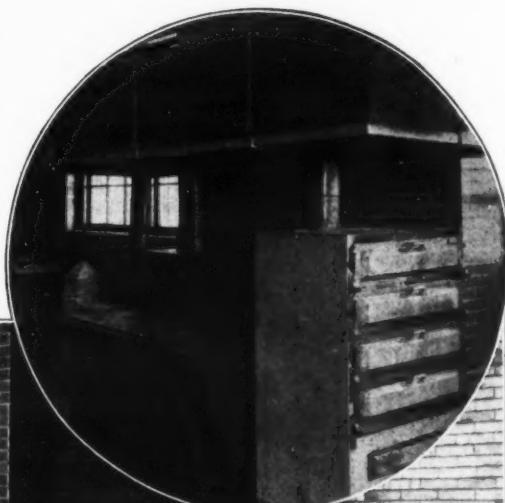
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ABOVE, a "Van" Cafeteria in the Bolton High School, Alexandria, La. In circle below, kitchen of the Bolton High School.

Lower view, an unusually large cafeteria counter in Charleston High School, Charleston, W. Va.



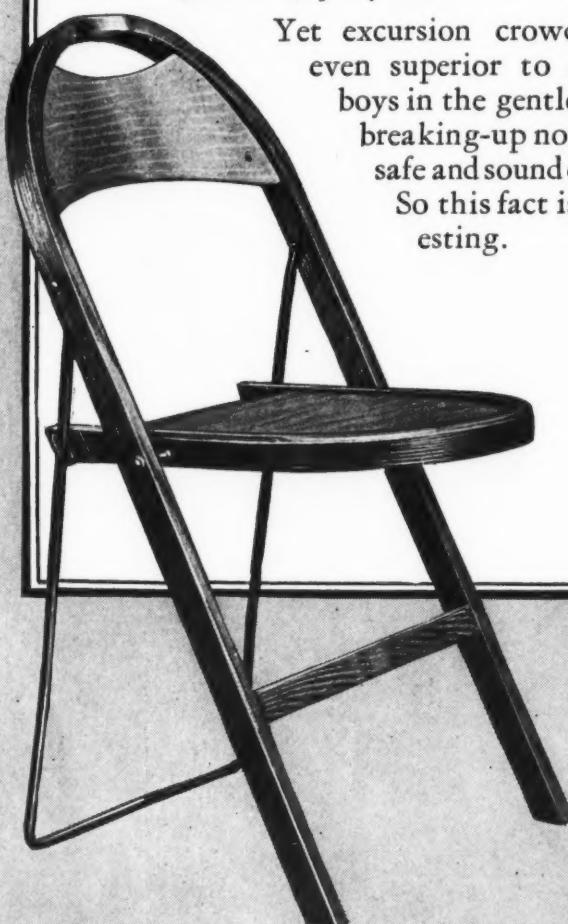
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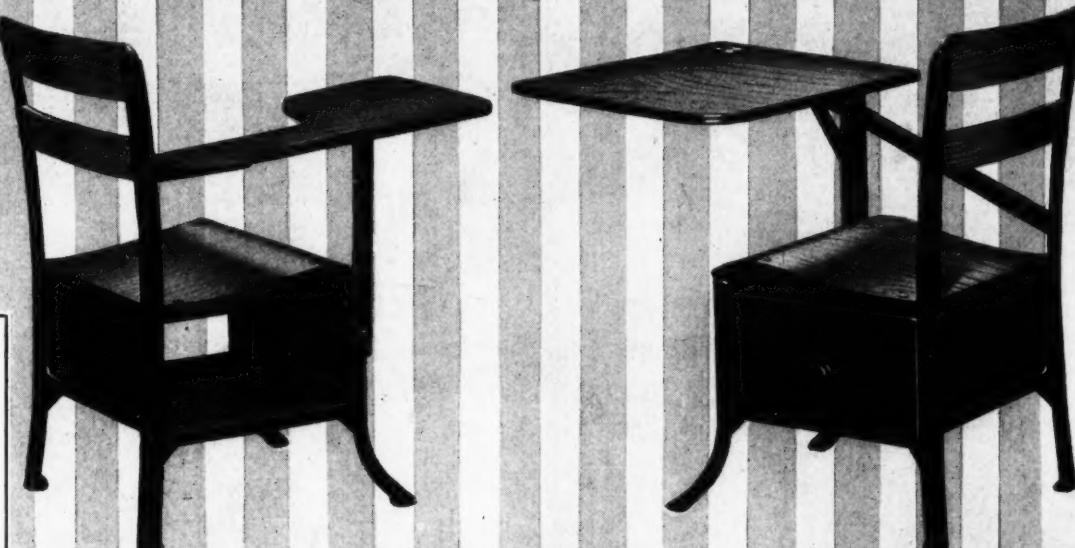
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Rigid, Non-Vibrating Top.



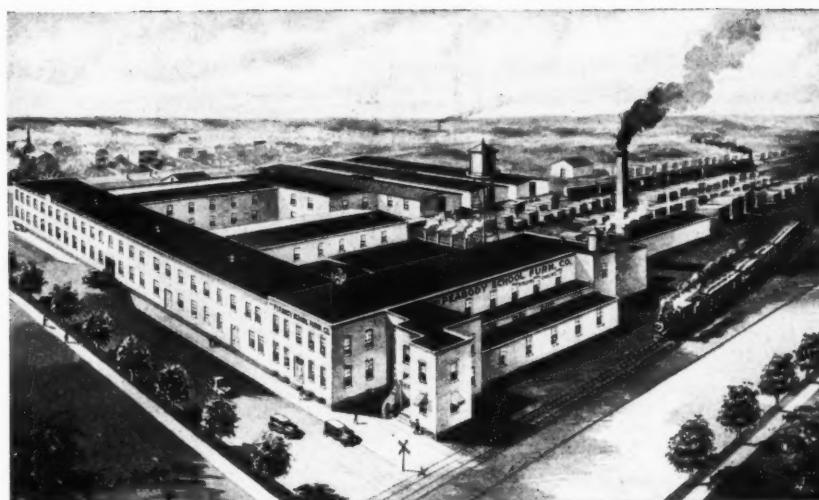
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Noiseless Folding Seat. Semi-Steel Standards.



**SANITARY ADJUSTABLE DESK.**  
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**The Peabody School Furniture Co.**  
North Manchester, Indiana



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PATENTED JAN. 18, 1910.



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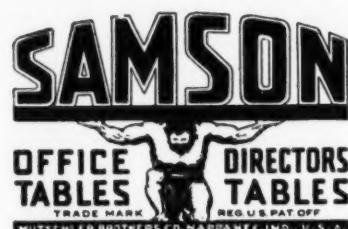


NON-TIP FOLDING CHAIR No. 70.  
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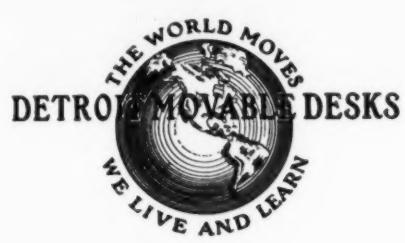


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## DETROIT SCHOOL EQUIPMENT CO.

General Offices and Factory, Holly, Mich.



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## IDEAL CHAIR FOR ANY OCCASION

The "VIKING" All-Steel Indestructible Folding Chair is the ideal chair for public gatherings, especially in the school gymnasium, meeting rooms, etc., etc., etc. When not in use they can easily be stowed away, since they fold perfectly flat and can be piled or stacked without slipping or falling.

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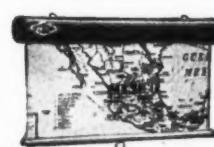
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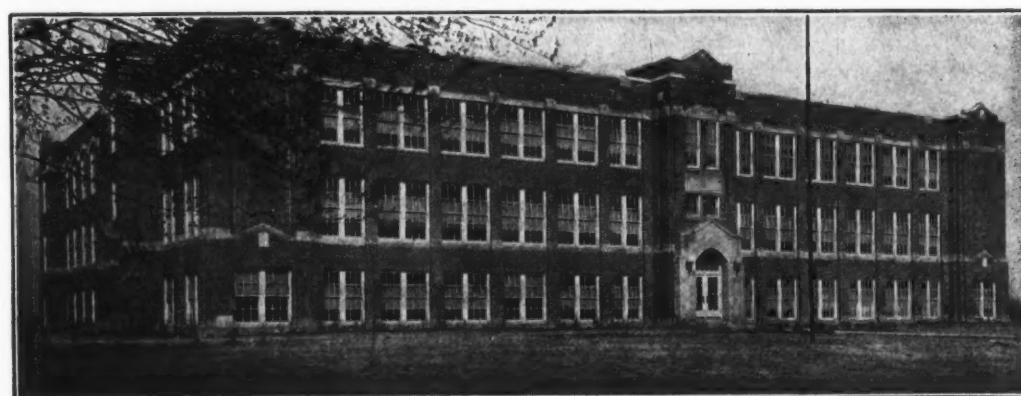
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**"LINO" Desks**  
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No necessity to twist body or incur strain on the spine.

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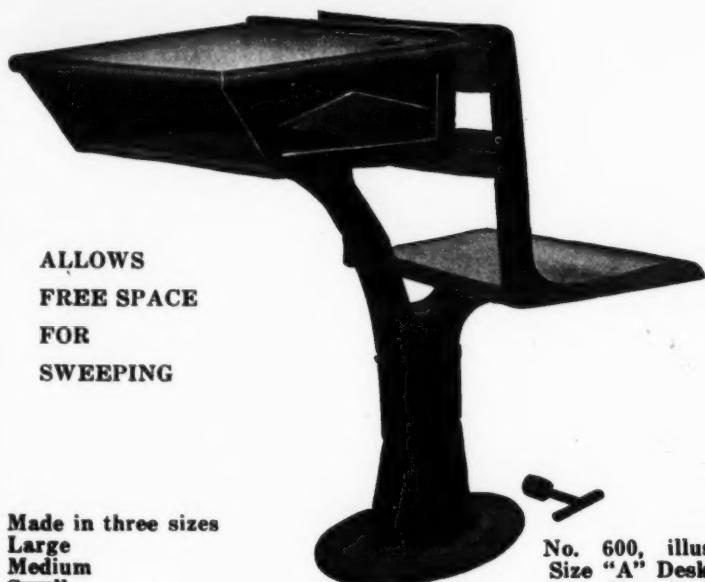


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Large  
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Box Style

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*Descriptive literature and prices on request.*

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Office and Factory

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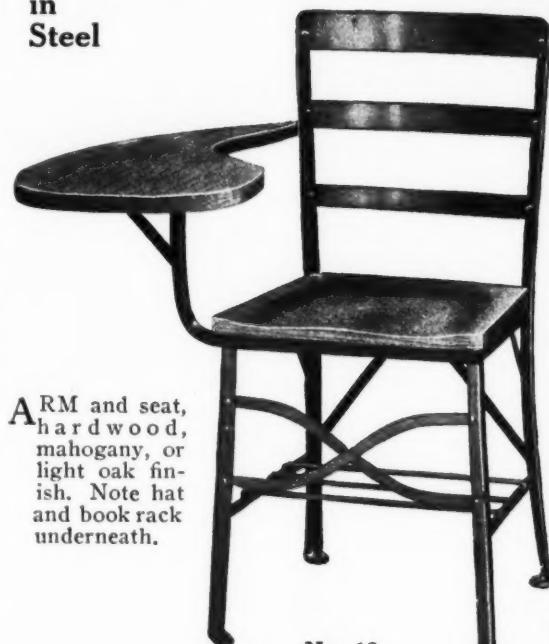
One minute, to tear off the coupon, pin it to your letter head, address, and stamp an envelope, will perhaps save your Board hundreds of dollars, and yourself a lot of worry. Spend the minute!

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**A. FLANAGAN COMPANY**  
920 North Franklin St.  
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ABOVE: Junior High School No. 3, Trenton, N. J., Mr. Ernest Sibley, Architect, Palisade, N. J., Mr. J. Osborne Hunt, Associate Architect.

BETWEEN: View, showing the motor-driven Duplex Jennings Vacuum Heating Pumps on the return line of the heating system.

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# THE AMERICAN School Board Journal

A Periodical of School Administration

Published on the first day of the month by

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August, 1927

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## "LET'S WAIT UNTIL SCHOOL OPENS"

**W**ITHIN the last decade, all American business offices have been flooded by business forecasts and reviews. This vast wealth of opinion is based upon the presumption that knowing the future, the element of chance is removed from business. It is most difficult in industry to judge the demand and buy against the future and the presumption of knowledge is argued as business insurance.

The average school executive can gauge the demands for the opening of school to a most interesting point of accuracy. The higher type of school executive begins his buying from reliable producers and dealers in April and May, sets July and August dates for delivery. Unfortunately, hundreds of executives, particularly in smaller communities, defer the placing of school supply orders for a variety of reasons, but always in the inexcusable style, "Let's wait until school opens."

School-supplies sales should reach a peak in July. The peak is reached about September 15. Prices in July are lower than in September. The lowest prices are always obtained in May and June. With the rush of September, the average producer and dealer is handicapped just as soon as the demand begins to embarrass the stock and shipping departments. The law of supply and demand works in the school supply business.

The moral of the story is simple: "**LET'S NOT WAIT UNTIL SCHOOL OPENS.**"

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# A Good Workman Must Have Good Tools

*otherwise his superior skill is nullified*

Likewise it is foolish economy to hire trained teachers and give them poor equipment to work with.

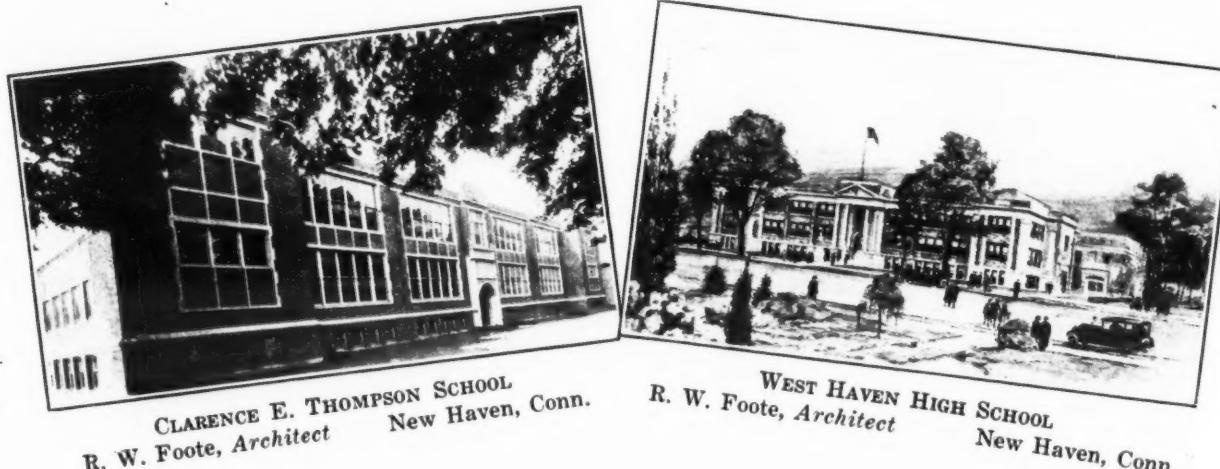
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